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ABSTRACT

Results of a 1981 survey of graduates of baccalaureate health administration programs are presented. An initial information gathering survey of reputed college programs in health administration, the Health Administration Program Survey, was conducted to develop a listing of baccalaureate recipients in health administration. A questionnaire, the Baccalaureate Graduates Survey, was mailed and completed by 1,170 graduates. In addition, a telephone survey of selected nonrespondents was undertaken. Research objectives were as follows: (1) to identify personal characteristics, academic background, work experience, and current employment status; (2) to detect employment patterns of those graduates who are currently employed in the health field; and (3) to assess health-related positions currently held by graduates, specifically in terms of titles, locations, organizational information, areas of responsibility, type and level of positions, and salaries. An additional objective was to assess the views of health administrators concerning the knowledge and skills needed to function successfully in health-related organizations. Appendices include questionnaires and a list of participating institutions. (SW)

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ASSOCIATION OF UNIVERSITY PROGRAMS IN HEALTH ADMINISTRATION

BACCALAUREATE HEALTH ADMINISTRATION GRADUATES: A DECADE REVIEW

1983

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BACCALAUREATE HEALTH ADMINISTRATION GRADUATES: A DECADE REVIEW

Task Force on Undergraduate Education

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Table of Contents

Table of Contents i

Preface iii

Acknowledgements iv

Table of Tables v

Table of Figures viii

I. Introduction 1

II. Methodology 5
- A. Research Objectives 5
- B. Research Design and Implementation 5
- C. Treatment of Data 14
- D. Summary 15

III. Baccalaureate Graduates in Health Administration: Description 17
- A. Personal Characteristics 17
- B. Employment Status 22
- C. Position Descriptions of Baccalaureate Graduates Currently Employed in the Health Field 24
- D. Knowledge and Skill Areas 27
- E. Summary 30

IV. Health Administration Baccalaureate Graduates: Career Patterns 33
- A. A Perspective on Careers 33
- B. Determinants of Retention in Health Administration Careers 38
- C. Annual Earnings in Health Administration 56
- D. Jobs, Gender and Pay: Sex Interactions in Determinants of Earnings 62
- E. Summary 69

V. Knowledge and Skill Areas: Practitioner Perspectives . . . 71
- A. Summary 76

VI. Implications and Recommendations 77

Appendices 81
- A. Health Administration Program Survey: Cover Letter, Questionnaire and Survey 81
- B. Baccalaureate Graduate Survey: Cover Letter, Follow-up Query and Questionnaire . . . 88
- C. Cross-Tablulations By: Year of Graduation, Age at Graduation, Sex, Race, AUPHA Membership . . . 97

Table of Contents

D. Knowledge and Skill Areas Descriptions 120
E. Variable Description: Conceptual Model 124
F. Practitioner/Employer Panel:
Cover Letter and Questionnaire 130
G. Baccalaureate Health Administration Programs 136
H. AUPHA Full Membership (Type B) Membership Criteria . . 149

References 153

7

Preface

Baccalaureate Education for Health Services Administration -- what is it? What does it accomplish for students and for society?

Health services administration education began as graduate professional education in the University of Chicago's Graduate School of Business in the 1930's. These graduate programs have been relatively visible and small in number.

Baccalaureate health services administration education, as an established part of higher education, is a more recent phenomenon. The programs are more numerous and, as small entities among the many undergraduate offerings of universities, less visible.

This monograph by the Association of University Programs in Health Administration (AUPHA) was made possible by the generosity of the W.K. Kellogg Foundation. It is a major step forward in contributing to our understanding of baccalaureate education in health services administration.

Special thanks go to AUPHA's Task Force on Undergraduate Education and Dr. Ann Tourigny, the study director, for the devoted efforts which made this monograph possible.

R. Hopkins Holmberg
Chairman of the Board
Association of University Programs
in Health Administration

8

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Table of Tables

Table 1: Summary of Baccalaureate Program Disposition by BGS 7
2: BGS Return Rate by School 9
3: Disposition Status of BGS Programs and Graduates by Census Region 10
4: Academic Loci Representation 11
5: Sex Ratio of Sample Compared to Respondent Group 13
6: Random Distribution of Respondents, Non-Respondents, and Undeliverables 13
7: Employment Status of Non-Respondents 14
8: General Information: Baccalaureate Health Administration Graduates 18
9: Academic Degrees Other Than Baccalaureate in Health Administration 20
10: Health-Related Work Experience Prior to Entering Health Administration Program 21
11: Variable Related to First Position Placement After Graduation from Baccalaureate Health Administration Program 23
12: Current Employment Status: Baccalaureate Health Administration Graduates 24
13: Position Description of Baccalaureate Health Administration Graduates Employed in Health Field 25
14: Organizational Focus of Respondent Currently Employed in the Health Field 26
15: Primary Areas of Responsibility and Activity/Tasks for Respondents Currently Employed in Health Field 28
16: Knowledge and Skill Areas 29
17: Most Important Knowledge and Skill Areas Learned On-The-Job 30
18: Significance Tests of Discriminant Functions: Employment Status 39
19: Results of Discriminant Analysis of Employment Status on Career Antecedents 39
20: Discriminant Classification Results for Employment Status 41
21: Regression Analysis of Recoded Employment Status on Career Antecedents 42
22: Significant Tests of Discriminant Functions: Job Title 43
23: Results of Discriminant Analysis of Job Title on Career Antecedents 44
24: Discriminant Classification Reults for Job Level 46
25: Significance Tests of Discriminant Functions: Job Title 47
26: Results of Discriminant Analysis of Job Level on Career Antecedents 48
27: Discriminant Classification Results of Job Level 49
28: Significance Tests of Discriminant Functions: Organization Type 50
29: Results of Discriminant Analysis of Organization Type on Career Antecedents 52

Table of Tables (cont.)

Table 30: Discriminant Classification Results for Organization Type 53
31: Significance Tests of Discriminant Functions: Organization Sponsor 53
32: Results of Discriminant Analysis of Organization Sponsor 54
33: Discriminant Classification Results for Organization Sponsor on Career Antecedents 55
34: Regression of Annual Earnings on Personal Background, Academic Background, Work Experience, Job-Seeking Behavior and Occupational Characteristics: Unstandardized Coefficients 57
35: Regression of Annual Earnings on Personal Background, Academic Background, Work Experience, Job-Seeking Behavior and Occupational Characteristics: Standardized Coefficients 58
36: Two-Way Analysis of Variance: Earnings by Job Title and Sex 63
37: Annual Earnings Regressions by Sex: Unstandardized Coefficients 65
38: Annual Earnings Regressions in Standard Form for Males . 67
39: Annual Earnings Regressions in Standard Form for Females . 68
40: Practitioner/Employer Panel Rankings of Knowledge and Skill Areas Inherent to Employment in Health Administration Positions 74
41: Practitioner/Employer Panel Rankings of Knowledge and Skill Areas Inherent to Successful Job Performance in Middle-Level Health Administration Positions 76
42: Number of Baccalaureate Programs 85
43: Status of Baccalaureate Programs 85
44: Types of Degrees Offered 86
45: Number of Programs by State 86
46: Specialization Options 87
47: Baccalaureate Health Administration Graduates: Age at Graduation by Year of Graduation 98
48: Selected Characteristics of Baccalaureate Health Administration Graduates by Year of Graduation 99
49: Position Description of Respondents Currently Employed in Health Field by Year of Graduation 100
50: Organizational Focus of Respondents Currently Employed in Health Field by Year of Graduation 101
51: Knowledge and Skill Areas Identified by Respondents Employed in Health Field by Year of Graduation 102
52: Sex by Age at Graduation 106
53: Employment Status by Age at Graduation 106
54: Position Description of Respondent Currently Employed in Health Field by Age at Graduation 107
55: Primary Areas of Responsibility of Respondents Currently Employed in the Health Field by Age at Graduation 108

Table of Tables (cont.)

Table 56: Organizational Focus of Respondents Currently Employed in Health Field by Age at Graduation 109
57: Mobility Within and Between Organizations by Respondents Who Have Been Employed in the Health Field Since Graduation By Their Age at Graduation . . . 109
58: Knowledge and Skill Areas Identified by Respondents Who Have Been Employed in the Health Field by Age at Graduation 110
59: Employment Status by Sex 112
60: Description of Respondents Currently Employed in Health Field by Sex 113
61: Organizational Focus of Respondents Currently Employed in Health Field by Sex 114
62: Primary Areas of Responsibility of Respondents Currently Employed in the Health Field by Sex 115
63: Sex by Race 116
64: Employed Status by Race 116
65: Position Description of Respondents Currently Employed in Health Field by Race 117
66: Organization Focus of Respondents Currently Employed in Health Field by Race 118
67: Comparison of AUPHA Member and Non-Member Programs . . . 119

12

Table of Figures

Figure 1: Conceptual Model Relating Baccalaureate Graduate Survey Variables to Career Outcome in Health Administration . . . 35

I. INTRODUCTION

Baccalaureate education for health administration began its second decade in 1981. The undergraduate major in health administration was introduced in 1926 at Marquette University, but the program existed only for a brief time. The concept of baccalaureate education for health administration was revitalized in the late 1960's and 1970's. As of 1981, more than 100 colleges and universities in the United States and Canada offer baccalaureate courses of study preparing students for careers in health administration.

The early programs developed in an era in which social concerns were predominant in the United States and Canada. The programs which developed in this period began in the midst of an expanding economy which also held high expectations for employment opportunities. Government programs to eradicate poverty and increase the public's health and social well-being heightened the visibility and diversity of opportunities. The need for administrators at the departmental supervisory level and in smaller rural health organizations was an additional factor.

Increased health insurance coverage and particularly the Social Security Amendments in 1965 (i.e., Medicare/Medicaid) were responsible for enlarging many health services and facilities, especially in long-term care. In 1969, the National Advisory Council on Nursing Home Administration, established by the Social Security Amendments, prepared a model code for state licensure of nursing home administrators. This code included the recommendation that the baccalaureate degree be the minimum educational requirement for state licensure by 1978. Some states adopted this code which encouraged the establishment of baccalaureate programs, specifically programs focusing on long-term care administration.

Support from various sources for establishing or developing programs demonstrated the responsible independent judgment that such programs were needed. Some of the early programs were established through grants from the W.K. Kellogg Foundation or the United States Public Health Service.

New baccalaureate programs in the latter part of the 1970's were based on some of the above factors but also were established in response to increasingly difficult economic conditions. Emphasis on employment after graduation became a primary concern for many students.

Considerable controversy and discussion accompanied development of baccalaureate health administration programs. Graduate programs have a strong growth record and have achieved professional status within the practice of health administration. The baccalaureate programs' objectives were unclear to many and a complementary relationship with graduate programs was not readily established. Critics of the new baccalaureate major questioned the resources being allocated, quality of faculty, focus of the major, its effect on students' overall general education, and the job market for baccalaureate graduates. Recent history indicates that the place of baccalaureate education is now established, and the current agenda is enhancing the quality of programs.

In recognition of the increasing activity in undergraduate education for health administration, the Association of University Programs in Health Administration (AUPHA) admitted undergraduate programs to its membership in 1972. Central to this action was the belief that collegial exchange was important to development of education both at the undergraduate and graduate levels. The Association initiated a number of activities to strengthen baccalaureate education. It involved undergraduate faculty members in each of its active Task Forces in 1973 and established the Task Force on Undergraduate Education in 1974.

With support from the W.K. Kellogg Foundation, the Task Force undertook several initiatives. Three faculty institutes were conducted to provide baccalaureate program faculty the opportunity to exchange views on program design, curriculum content and educational methodology. In addition to the institutes, the Task Force produced three publications. Undergraduate Education for Health Services Administration, proceedings of the first undergraduate faculty institute, was published in 1975. The second, An Introduction to Baccalaureate Education for Health Administration (1978), describes the history of the field and emerging roles in health administration, and includes a description of the early programs and some future perspectives. Baccalaureate Health Administration (Gordon, 1978) provides a description of several baccalaureate programs and presents an analysis of factors affecting program development. In addition, a special issue of Program Notes (June 1977) was devoted to undergraduate education.

In November of 1979, AUPHA received a grant from the W.K. Kellogg Foundation to strengthen baccalaureate health administration education. Principal objectives include the identification of:

- baccalaureate graduate placement patterns,
- knowledge and skill areas inherent to successful job performance,
- prototypical positions held by baccalaureate graduates, and
- academic programmatic structure and content necessary to provide the foundation of competency for health services administration.

To accomplish the objectives of the project, the Task Force on Undergraduate Education directed the Office of Undergraduate Education to develop a data base on baccalaureate programs and their graduates. In the fall of 1980, AUPHA conducted a survey of existing baccalaureate programs. The survey was designed to identify programs, collect general information about them, and solicit cooperation for a survey of their graduates. One hundred programs and over 5,000 graduates were identified. Twenty-nine of these programs with 2,522 graduates participated in the survey of baccalaureate graduates.

In 1981, AUPHA conducted a survey of graduates of baccalaureate programs. Respondents were asked to provide the following types of information: personal characteristics, education patterns, employment status, current health-related positions, employment history, and knowledge and skill areas inherent to successful job performance. This report provides detailed analyses of these data. The major findings are:

- The number of baccalaureate graduates increased dramatically in the late 1970's. Two distinct age groups (under 23 and over 25) were identified, the ratio of males to females was equal, and minorities accounted for approximately one-tenth of the respondents.
- A substantial number of respondents were trained in a clinical field prior to entering the baccalaureate programs. One-sixth of the respondents held graduate degrees.
- Eighty-seven percent of respondents were employed and the majority of those that were not employed were in graduate school. Two-thirds of the respondents were employed in the health field.
- Those currently employed in the health field were likely to hold middle-level administrative positions and be employed in hospitals, nursing homes, and ambulatory care facilities. Most worked in small to moderate size cities.
- The assessment of knowledge and skill areas related to successful job performance revealed the need for stronger linkages between general management disciplines and topics specific to the health field. The importance of liberal learning was also indicated.
- Work experience in the health-field prior to entering the baccalaureate program, job-seeking behavior, and number of years of health-related work experience were found to influence the career patterns of the respondents. Differences in employment status were related to the academic locus of the degree program.

To add insight from the field of practice to the analysis of the findings, a group of health administrators was invited to participate in a meeting with the Task Force on Undergraduate Education. The practitioner perspectives on the role of baccalaureate education and knowledge and skill areas inherent to successful job performance were consistent with those identified by the graduates.

Chapter II presents a discussion of the methodology. General descriptive data from the survey of graduates are presented in Chapter III, and detailed analyses of career patterns are presented in Chapter IV. Chapter V summarizes the practitioner perspectives. The concluding chapter provides recommendations for consideration in the evolution of baccalaureate health administration education.

II. METHODOLOGY

The purpose of this chapter is to describe the methodology used in this investigation. Information about the research objectives, design and implementation is presented. Attention is given to the quality of the sample and the issue of non-response. The approach to data analyses is addressed. A concluding section deals with the limitations of the study.

RESEARCH OBJECTIVES

The major purpose of this research project is to collect information about graduates of baccalaureate programs in health administration, specifically:

(1) the identification of personal characteristics, academic background, work experience, and current employment status;

(2) the detection of employment patterns of those baccalaureate graduates who are currently employed in the health field;

(3) an assesssment of health-related positions currently held by baccalaureate graduates, specifically in terms of titles, locations, organizational information, areas of responsibilities, type and level of positions, and salaries; and,

(4) an investigation of the perceived knowledge and skills needed to function successfully in health-related organizations.

To accomplish the research objectives of the project, the Task Force on Undergraduate Education (hereafter referred to as Task Force) directed the Office of Undergraduate Education to develop a data base on baccalaureate programs in health administration and their graduates. The Task Force first met in July, 1980, to establish the framework for the project and set the parameters and objectives for the research. Throughout the research process, the Task Force played a central role in the development of survey questionnaires, a framework for treatment of the data, refinement of the data and identification of significant findings and conclusions. The Task Force met regularly with project staff, consultants, and health administrators to ensure cohesiveness, soundness, and continuity in the research efforts.

RESEARCH DESIGN AND IMPLEMENTATION

The study consists of two major research components. An initial information gathering survey of reputed college and university programs in health administration, the Health Administration Program Survey (HAPS), was conducted to develop a listing or frame of baccalaureate recipients in health administration (see Kish, 1965). The second was the actual mail questionnaire survey of baccalaureate recipients, termed the Baccalaureate Graduates Survey (BGS).

Health Administration Program Survey (HAPS)

In order to construct a list of health administration baccalaureate recipients in the United States and Canada, it was first necessary to identify institutions which awarded baccalaureate degrees in the field. The overall objectives of the HAPS were to identify relevant programs and to solicit administrative cooperation for the follow-up survey of baccalaureate program graduates.

A master list of known programs was compiled by AUPHA staff during the summer of 1980 utilizing information gathered from previous correspondence with programs, lists of programs from other associations, references of programs obtained directly from AUPHA member program directors and staff (see also Gordon, 1978). A total of 205 colleges or universities appeared on this list. The cover letter, HAPS questionnaire and summary of the data are in Appendix A. With an initial mail-survey to these 205 schools on September 18, 1980, a total of 139 (68%) responses were returned as of December 31, 1980, the predetermined deadline.

Contact persons in each college or university were asked if the academic publications of their university or college specifically state that their academic unit offers a course of study preparing undergraduate students for careers in health administration. Of the 139 colleges or universities which responded, 100 (72%) indicated that their academic unit offered a baccalaureate degree program and 24 (17%) did not offer a baccalaureate degree program. The remainder either offered some coursework, were developing a program, or had an associate degree program.

The Task Force agreed on the following criteria for including a program in the sampling frame for the Baccalaureate Graduate Survey (BGS):

(1) An institution must state in its published bulletin that it "prepares people for careers in health administration;"

(2) the program must have graduated 15 or more students as of June 1980; and,

(3) must have indicated on the HAPS that it would participate in the follow-up survey.

As stated above, the total number of confirmed degree programs, based on the HAPS information, equals one hundred. These 100 schools were contacted through their director for cooperation and participation in the BGS. As shown in Table 1, 14 schools responding to HAPS indicated they had a baccalaureate degree program in health administration but no students had yet graduated. Another 18 indicated they could not furnish AUPHA a list of graduates (a total of 1,047 by their reports). Nineteen programs reported less than 15 graduates as of June 1980, which was below the preset minimum. These 19 schools reported a total of 54 graduates among them. Although 68 of those schools in the HAPS survey consented to provide lists of graduates, only 49 of them actually met sampling criteria. The total estimate of graduates from these programs was 4,502. These 49 programs were contacted by mail and asked to provide lists with their graduate's names and their addresses. Approximately one month after these letters were sent, all program directors who did not send their lists were contacted by telephone to remind them to send the lists. At this point some programs declined to participate for a variety of reasons (e.g., lack of time to prepare a list, did not actually have a record of graduates' names and addresses, vacancies in program director positions, etc.). Other programs verbally indicated they would send the lists within two weeks.

Of these 49 programs, 29 programs (59%) actually supplied usable lists of graduates and their addresses. These 29 schools reported a total of 2,522 graduates and this latter figure represents the target population of health administration graduates. These 2,522 graduates account for 56% of the eligible pool of graduates (4,502 estimated) and 45% of the total known graduates (5,603 estimated).

Table 1: Summary of Baccalaureate Program Disposition for BGS

Status	Number of Programs	Number of Graduates (estimated)
No graduates to date	14	0
Cannot furnish list of graduates and addresses	18	1,047
Can furnish list of graduates; less than 15 graduates	19	54
Can furnish list of graduates; more than 15 graduates	49	4,502
Total	100	5,603

Baccalaureate Graduate Survey (BGS)

The second phase of the AUPHA study was the survey of baccalaureate graduates from identifiable and cooperating programs. The BGS served two purposes. One purpose was to aid in developing social profiles of degree recipients in health administration, and the other was to identify the knowledge and skill areas graduates perceive as needed for their employment situation. The instrument used in this mail survey is in Appendix B, with the cover letter, and follow-up query. It was developed by the Task Force and AUPHA staff, and was based on the objectives of the survey, a review of previous research, and analyses of other health administration survey instruments.

A draft of the questionnaire was pretested using 25 undergraduates at the University of Maryland. The purpose of the pretest was to determine the readability, clarity of questions, and impact of the length (or respondent burden) of the questionnaire. The students were not health administration majors; therefore, no attempt was made to analyze the content of the questionnaire or the data. Format and style revisions in the questionnaire were made following the pretest.

Structured into four major sections (see Appendix B), the BGS instrument contains information on personal characteristics, academic history, health-related work experience, current employment status, and job-seeking behavior upon graduation. Section II addressed current health-related employment and involves current position characteristics, community size, job responsibilities, and salary. The third section is a chronological employment history and also includes information on how the first job was obtained. Section IV is an open-ended evaluative set of items about the utility of knowledge and skills potentially acquired during the baccalaureate health administration program.

On April 3, 1981, the questionnaire along with a cover letter explaining the study (see Appendix B) was mailed to the 2,522 graduates identified by their respective programs. A second letter and questionnaire were sent to all graduates who had not responded as of June 30, 1981. At the predetermined cut-off date of September 30, 1981, 1,170 graduates had responded.

The individual colleges or universities are not named, but Table 2 provides a summary of the return rates by each program. Although the saliency of the survey might be higher for AUPHA members, the return rates are similar for members (46%) and non-members (48%) while the percent of undeliverables is exactly the same (14%). The absolute return rate for the BGS was 46%, a total of n = 1,170. Some problems were encountered with the mailing lists obtained as evidenced in the number of "undeliverable" questionnaires (see Dillman, 1978; Call et al., 1982, on problems such as these). Adjusting the return rate for undeliverables, it becomes 53%.

Assessment of the Sample

Any evaluation of a sample's quality in the implementation of a survey should deal with two primary issues. One is the coverage of the sample frame and the other is non-response in the selected sample (see Cochran, 1977; Kish, 1965).

As stated previously, programs must have graduated 15 or more people, and forwarded the names and addresses of these graduates to the Office of Undergraduate Education to be included in the sample. By design, these criteria eliminated a total of 51 programs and 1,101 estimated graduates from the sample (see Table 1). Given this limitation, five procedures were conducted to assess the strengths and weaknesses of the sample. These procedures addressed geographic coverage, academic loci representation, sex ratio, randomness of non-response, and employment status of non-respondents.

Geographic Coverage: Table 3 presents a breakdown of programs and graduates by nine United States Census Regions and Canada. Based on the program survey, 14 programs stated they had no graduates and eight programs stated they had graduates but did not specify a number (see Table 1); therefore, 78 programs with 5,603 estimated graduates are included in the geographic coverage analysis.

Table 2: BGS Return Rates by School

Program*	Questionnaires Mailed #	Questionnaires Returned #	Absolute Response %	Undeliverables #	Adjusted Response %
A	48	28	57	3	60
B	47	20	43	0	43
C	47	26	55	5	61
** D	23	15	65	0	65
** E	184	42	23	73	38
** F	53	32	60	5	66
** G	44	16	36	13	51
** H	197	101	51	5	53
** I	34	10	29	8	38
J	17	12	70	0	70
K	41	20	48	3	52
L	28	8	29	6	36
M	89	46	52	17	64
** N	16	6	37	4	50
** O	56	27	48	8	56
P	18	12	66	2	75
Q	52	30	57	5	62
R	19	18	94	0	94
** S	58	10	17	2	17
T	49	13	27	1	27
** U	631	340	54	42	58
** V	201	91	45	14	49
** W	56	30	53	5	58
** X	40	20	50	4	55
Y	138	45	33	46	49
** Z	206	62	30	77	48
** AA	56	40	71	1	73
** BB	53	32	60	4	65
CC	21	18	85	0	85
	2,522	1,170	46	353	53

*Identified only by letter
**AUPHA Member Programs

Table 3: Disposition Status of BGS Programs and Graduates by Census Region

Census	A		B		C		Total	
Region	Prog. %	Grad. %	Prog. %	Grad. %	Prog. %	Grad %	Prog. #	Grad. #
NE	68	85	16	3	16	12	6	481
MA	33	68	22	1	45	31	9	1,368
ENC	50	86	25	1	25	13	12	678
WNC	38	51	38	4	24	45	8	403
SA	20	8	0	0	80	92	10	1,100
ESC	11	21	33	2	56	77	9	514
WSC	17	13	33	3	50	84	6	236
MTN	17	12	17	1	66	87	6	351
PAC	10	6	40	8	50	86	10	444
CAN	50	89	50	11	0	0	2	28

Note: Category A = Program with 15 or more graduates, and actually forwarded a usable name-address list to AUPHA.

Category B = Program has fewer than 15 graduates as of June, 1980.

Category C = Program with 15 or more graduates, but did not forward a usable name-address list to AUPHA.

Legend: NE = New England; MA = Middle Atlantic; ENC = East North Central; WNC = West North Central; SA = South Atlantic; ESC = East South Central; WSC = West South Central; MTN = Mountain; PAC= Pacific; CAN = Canada

All regions of the United States and Canada are represented in the survey sample (see Category A). The number of programs and the number of graduates are represented most strongly in the New England, East North Central, and Middle Atlantic regions of the United States and in Canada. The South Atlantic region is low in representation due to non-cooperation. This is important because it contributes a total potential to the graduate pool that is second only to the Middle Atlantic region (i.e., 1,100 vs. 1,368). The low representation from the South Atlantic region is particularly due to the inability of one program which reported over 600 graduates to furnish the names and addresses of those people. The actual sample frame composition is dominated by the New England, Middle Atlantic, and East North Central regions. According to the HAPS (see Appendix A), the majority of the operational baccalaureate programs are also located in these regions.

In general, this analysis suggests caution in generalizing the findings from these data to the South and West until future efforts demonstrate that career patterns and related phenomena are invariant across regions of the United States and Canada. (see Quatrano and Clary, 1977, on health administrative labor mobility across regions). Moreover, it suggests to future researchers sampling this population that non-cooperation by schools is a problem which may require a considerable effort to prevent (see Leuptow et. al., 1977, on the general issues of non-participants bias in survey research).

Academic Loci: Academic loci as a variable in this study, are used in reference to the administrative unit of the programs. The 100 programs identified in the HAPS were asked to name the department or school in which they were located. For analytic purposes, the responses were compiled and collapsed into five categories. Category titles are not necessarily the names of the departments or schools.

Thirty programs (30%) were located in allied health/health professions, 29 (29%) were in business administration, 12 (12%) were interdisciplinary, 9 (9%) were in community service, 11 (11%) were in other academic units and 9 (9%) did not identify the academic locus of the program. As stated previously, 49 programs (4,502 estimated graduates) met the requirements for inclusion in the study and 29 programs (2,687 estimated graduates) actually sent lists of graduates and their addresses. A comparison between the eligible programs and the sample programs provides information on the academic loci of baccalaureate health administration programs and graduates (see Table 4).

Table 4: Academic Loci Representation

Academic Loci	Eligible Programs		Eligible Graduates		Sample Programs		Sample Graduates	
	#	%	#	%	#	%	#	%
Allied Health/ Health Professions	22	45	1,662	37	11	38	977	36
Business Administration	9	18	594	13	5	17	193	7
Community Service	8	16	1,640	36	5	17	1,011	38
Interdisciplinary	4	8	333	7	4	14	333	12
Other	60	12	273	6	4	14	173	6
Total	49	99	4,502	100	29	99	2,687	100

The allied health/health professions academic locus contains the largest number of programs in both the eligible and sample categories as well as in the 100 programs identified through the HAPS. While business administration accounted for 29 (29%) of the 100 identified programs, 9 (18%) of the eligible programs, and 5 (17%) of the sample programs are located in this academic unit. The major reasons for the relatively low representation of programs located in business administration in both the eligible and sample categories are the inability to separate health administration graduates from business graduates within the department, the small number (-15) of graduates per program, and the lack of alumni lists. All four eligible interdisciplinary programs and the majority of the eligible community service programs are included in the sample.

Examination of the number and percentage representation of graduates relative to academic locus reveals that allied health/health professions and community service graduates account for approximately three-fourths of both the eligible and sample categories. Interdisciplinary and other graduates are proportionally represented in both categories. While business administration programs are proportionally represented in both the eligible and sample categories, the percentage of graduates from this academic locus is relatively low, particularly in the sample category. Conversely, programs located in community service units account for 16% of the eligible pool and 17% of the sample, but the number and percentage of graduates from this locus is high (1,640 or 36% and 1,011 or 38%, respectively). Comparison of the data on programs located in business administration and community service loci leads to two suppositions: 1) programs located in business administration units produce a relatively small number of graduates and programs located in community service units produce a relatively large number of graduates, or 2) programs located in business administration have existed a shorter length of time and programs located in community service have existed for a longer period. Programs did not furnish lists of graduates according to year of graduation; therefore, neither of these suppositions can be confirmed nor denied.

Relative to representation, the sample reflects the academic loci distribution in the known population. Programs and graduates affiliated with allied health/health professions, community service, and interdisciplinary units are strongly represented. Program representation from business administration is lower in both the eligible and sample populations than in the known population. Graduates from business administration programs may be under-represented; therefore, some caution must be used in generalizing the data to this sector of the population.

The 29 programs participating in the BGS originally estimated a total of 2,687 graduates. The actual number of graduates in the sample is 2,522. The difference of 165 can be attributed to overestimation, which is proportionally distributed among the sample programs.

Sex Ratio: As one indicator of respondent/non-respondent variability, the sex ratio of the sample (to whom questionnaires were actually mailed) was compared to that of the respondent group. Table 5 indicates the respondent group is similar to the sample population; however, slightly more females and, hence, fewer males responded to the questionnaire.

Table 5: Sex Ratio of Sample Compared to Respondent Group

	Sample		Respondents	
Sex	N	%	N	%
Males	1,346	53	567	49
Females	1,139	45	601	51
Not included*	37	2	2	0
Total	2,522	100	1,170	100

*In the sample population, the first name of the person was used to indicate gender. Thirty-seven individuals had first names that could indicate either a male or a female.

Randomness of Non-Response: Using a random numbers table, ten percent of the total sample population (by program) was drawn. As shown in Table 6, the distribution of the ten percent random sample and the sub-sample population is similar. It is strongly indicated that the non-respondents are randomly distributed.

Table 6: Random Distribution of Respondents, Non-Respondents, and Undeliverables

	Sample Population		10% Random Sample	
	N	%	N	%
Respondents	1,170	46	132	51
Non-Respondents	999	40	99	39
Undeliverables	353	14	26	10
Total	2,522	100	257	100

Telephone Survey of Selected Non-Respondents: An attempt was made to contact all 99 non-respondents identified in the ten percent random sub-sample discussed above. Of these non-respondents, telephone numbers could not be obtained for 50 (50%) of them. Of the remaining 49 people, 40 were contacted either directly or through their parents. The remaining nine people could not be reached by telephone (three were wrong numbers, six had no answer after three attempts were made at various times on separate days - see Dillman, 1978).

Respondents to the telephone survey were interviewed using a set of standardized questions regarding their employment status. Table 7 provides the response patterns and they do not differ significantly from the general BGS survey data. All persons reached by telephone said they were employed or in school full-time. Twenty-four (60%) of those contacted indicated they were currently employed in the health field. The five people (13%) in school full-time were in health-related graduate degree programs; therefore, the number of non-respondents involved in the health field totals 29 (73%). The other 11 (27%) people were employed in organizations and positions similar to the survey respondents in a non-health related position.

Table 7: Employment Status of Non-Respondents

Status	Random Sub-Sample of Non-Respondents		Respondents	
	N	%	N	%
Currently Employed in Health-Related Job or Organization	24	60	780	67
Currently Employed Non-Health	11	27	238	20
Full-Time Graduate School	5	13	70	6
Engaged in Other Activities	0	0	82	7
Total	40	100	1170	100

In addition to the above information about non-respondents, the graduates reached by telephone were asked why they did not respond to the survey. The most frequent answers given included: too busy to respond to any mail survey, did not remember receiving the survey, or forgot to return the survey.

TREATMENT OF THE DATA

The BGS study is exploratory research. As previously stated, the major purpose of the study is to collect information about graduates of baccalaureate health administration programs. The total data set was first analyzed using frequencies and percentages to get descriptive information about the graduates. In order to identify certain trends, cross-tabulations were performed on selected variables. These two types of information are presented in Chapter III.

The career patterns of baccalaureate graduates in health administration have not been analyzed in any other research project; therefore, this portion of the data analysis was designed to maximize the information contained in the data set. The Task Force met with Frank Howell, Ph.D., a social statistician specializing in career methodology, to develop the framework for this portion of the data analysis. A multivariant approach was determined to be appropriate for analysis of this data. The Task Force presented Dr. Howell with assumptions and identified specific variables to examine. The Task Force specified that the analysis take into account what variables have an effect singularly and in concert on career outcomes. A more detailed discussion of the techniques used to identify career patterns is presented in Chapter IV along with the findings.

SUMMARY

This chapter presents an overview of the research methodology used in this study. The study was systematically designed and represents a major effort to develop a data base on graduates of baccalaureate health administration programs. The study is not designed to test hypotheses; but rather, to answer questions which can lead to theory development in the field of health administration. In addition, implications from this study can be applied to other research efforts involving professional degree programs.

As with all research projects, there are limitations to the study. One is lack of cooperation by some colleges and universities that award baccalaureate degrees in health administration. For this reason, strict population projections from these data should not be made. Instead, it is better to use them as an improvement over previously available information, but hampered in an ideal sense by noncoverage problems in the frame (Kish, 1965). Another limitation, given the population actually covered, is survey non-response by sample members. Return rates could be affected by whether or not the school was a member of AUPHA, the sponsor of the survey(s), given that saliency is an important factor in mail questionnaire response (Dillman, 1979). However, cross-classifying return rates by AUPHA membership status rejected this notion. It is obvious that response rates vary by the alma mater of the sample member (see Table 2). This may indicate obsolete addresses of alumni and a weakness in alumni relations or both in the programs with low response rates.

Analyses were undertaken to address two types of representation in the BGS sample. The sample, analyzed according to census regions, has more complete coverage in the New England, East North Central, and Middle Atlantic regions of the United States and in Canada; however, coverage in the Southern and Western regions is weak. Therefore, caution must be exercised in generalizing the findings across regions. Examination of the various academic loci that are represented in the sample reveal strong representation from allied health/health professions, community service, and interdisciplinary based programs, but questionable representation from programs based in business administration.

The impact of non-response is problematic in all survey research. The absolute response rate in this study is 46% with a 53% response rate after adjusting for undeliverables. By design, the study includes programs and graduates for the years 1970 through the winter term of 1981. One reason for the 47% of the sample who did not respond could be that programs do not keep accurate lists of their alumni. The result of the current address problem on the response rate cannot be documented; however, the number of questionnaires returned as undeliverables (14%) substantiates this assertion. In addition, telephone numbers for one-half of the 10% random sub-sample of non-respondents could not be obtained. It is assumed that they no longer lived at the address furnished and possibly did not receive the survey. Moreover, many of the non-respondents contacted by telephone said they did not receive the survey. Regardless of the reasons, the number of non-respondents to the survey must be taken into account in drawing conclusions or implications based on this study.

Given the limitation due to non-response, three efforts were undertaken to ascertain similarity between the respondents and the non-respondents. Analysis of the sex ratio of the sample and the respondents reveals that the two groups are similar. Based on the random distribution analysis, there is an indication that the non-respondents are random. The non-respondents who were contacted by telephone are similiar to the respondents relative to employment status. Although this evidence is minimal, there is support for the assertion that respondents and non-respondents are not different.

There is no attempt in the following chapters to make strict generalizations to the total population of baccalaureate health administration graduates. Whether the conclusions reached in this study hold for the population or through time will be determined by replicating the study at a future date.

III: BACCALAUREATE GRADUATES IN HEALTH ADMINISTRATION: DESCRIPTION

Descriptive data from the Baccalaureate Graduate Survey (BGS) conducted in 1981 are presented in this chapter. Personal characteristics, including general information, academic degrees other than the baccalaureate in health administration, and health-related work experience prior to entering the baccalaureate programs are presented in the first section. The current employment status section discusses factors related to the job-seeking behavior of graduates, and outlines information on graduates employed in the health field, employed in other fields, and engaged in other activities. For graduates who were employed in the health field, information on types of positions held, organizational focus, and primary areas of responsibility is presented. In regard to employment in the health field, respondent perceptions of knowledge and skill areas gained through their baccalaureate education and in their work experience are described.

PERSONAL CHARACTERISTICS

General information on the personal characteristics of baccalaureate health administration graduates is presented in Table 8. Approximately 50% of the respondents graduated in 1979 through 1980. Of the 29 programs represented, the years of their first class of graduates are as follows: one program each in 1970, 1971, 1972, and 1973; three programs in 1974; four programs in 1975; six programs in 1976; five programs in 1977; two programs in 1978; four programs in 1979; and one program in 1980. Based on historical data, most baccalaureate programs graduate small numbers of students in the early years of operation, and the size of graduating classes increases over time. Therefore, the relatively high number of respondents who are recent graduates is consistent with the growth in the number and size of baccalaureate programs (see also Gordon, 1978).

As shown in Table 8, the first graduates represented in this study completed their degree in 1970. To identify trends, cross-tabulations of selected characteristics by year of graduation were performed. Analysis of this data indicates similarity relative to age at graduation, sex, job-seeking behavior, and employment status. Graduates in the early 1970's were more likely to be chief executive officers and have higher salaries than more recent graduates. A detailed presentation of this analysis is included in Appendix C.

The age distribution of respondents indicates the presence of two groups in this study. While the distribution is not strictly bi-modal, half of the respondents were under 23 years old and half were 23 years old or older at the time of graduation. Further analysis of the data revealed that the respondents who were 25 years old at the time of graduation were more likely to be employed in the health field and held middle and upper level administration positions than the respondents who were younger at the time of graduation (see Appendix C).

The ratio of males to females is approximately equal. Examination of employment patterns relative to gender revealed that although the ratio of males to females employed in the health field was equal, males were more

Table 8: General Information: Baccalaureate Health Administration Graduates

	All Respondents (n=1170)		Respondents Currently Employed in Health Field (n=780)	
A. Year Baccalaureate in Health Administration Granted				
	N	%	N	%
1970-71	9	1	8	1
1972	25	2	15	2
1973	26	2	19	2
1974	50	4	31	4
1975	60	5	38	5
1976	88	8	62	8
1977	135	12	93	12
1978	190	16	139	18
1979	279	24	172	22
1980-81 (winter term)	301	26	199	26
B. Age at Graduation				
20	13	1	9	1
21	296	25	186	24
22	319	27	192	25
23	88	8	55	7
24	45	4	31	4
25	42	4	29	4
26	29	3	23	3
27	28	2	21	3
28	29	3	17	2
29	24	2	19	2
30-34	77	7	54	7
35-39	62	5	52	7
40-44	44	4	36	5
45-49	37	3	30	4
50+	32	3	25	3
C. Sex				
Male	567	49	392	50
Female	601	51	387	50
D. Race/Ethnic Background				
White	1,040	89	700	90
Non-White	120	10	76	10
Not Stated	10	1	4	-
E. Current Marital Status				
Married	592	50	418	54
Never Married	513	44	303	39
Divorced	56	5	45	6
Widowed	3	-	3	-
Separated	7	1	7	1
F. Children at home				
0	838	72	530	68
1	123	10	86	11
2	133	11	108	14
3	55	5	40	5
4+	22	2	16	2

likely to hold upper level administrative positions, have a higher salary level, work in long-term care facilities, and indicate general administration as primary responsibility (see Appendix C). A more detailed analysis relative to gender is included in Chapter IV.

Approximately 90% of the respondents are white. The strength of statistical comparison based on race is diminished due to the relatively small number (120) of non-white respondents. However, examination of sex-ratio, employment status, and health-related position descriptors indicated little difference between the white and non-white respondent groups (see Appendix C).

Fifty percent of the respondents were married and most did not have children at home. The influence of family status on career outcomes is further examined in Chapter IV.

In general, the personal characteristics of respondents who said they were currently employed in the health field were not different from those of all respondents. This suggests that the respondents currently employed in the health field and those not currently employed in the health field were demographically similar.

Sixty percent of all the respondents and 54% of those currently employed in the health field held no academic degrees other than the baccalaureate in health administration. Twenty-nine percent of all respondents and 26% of those currently employed in the health field held either diplomas, associate degrees, or baccalaureate degrees in areas other than health administration. Fifteen percent of all respondents and 18% of those currently employed in the health field held graduate degrees. Eight percent of all respondents and 45% of those currently employed in the health field held other types of academic credentials such as specialized certificates or diplomas.

The majority (approximately 75%) of the graduates that reported other academic degrees held one additional degree and slightly less than 25% held two additional degrees. As shown in Table 9, the diploma or associate degree in nursing was the most frequently cited undergraduate degree, and the predominant graduate degree was in health administration.

Respondents holding graduate degrees in business administration, public health, public administration, and other disciplines did not specify that their programs included coursework in health administration. These degree programs could have options in health administration that were not reported; however, this point cannot be identified.

Six percent (70) of the respondents indicated they were currently pursuing graduate study. Forty-six of these respondents were enrolled in master's degree programs, eight were enrolled in medical, dental, or law school, four were doctoral students, and 12 stated they were involved in other types of graduate education. Twenty-four percent specified health administration and 23% indicated public health as their field of study. Business administration was listed as the field of study by 14% of these respondents. The remaining students listed various disciplines; however, the numbers are too small to be meaningful.

As stated previously, 15% of the respondents held graduate degrees and six percent were enrolled in graduate programs at the time the survey was

Table 9: Academic Degrees Other Than Baccalaureate in Health Administration*

	All Respondents (N=466)		Respondents Currently Employed in Health Field (N=357)	
	Number	% Reporting	Number	% Reporting
Undergraduate Degree				
Diploma/Assoc. in Nursing	119	26	99	28
Associate in Allied Health	47	10	35	10
Associate (other)	80	17	69	19
Baccalaureate (other than health administration)	94	20	65	18
Graduate Degrees				
Master's in Health Administration**	86	18	79	22
Master's in Business Administration	30	6	14	4
Master's in Public Health	11	2	8	2
Master's in Public Administration	11	2	9	3
Master's (other)	33	7	28	8
Doctorate/Professional	5	1	3	1
Other (certificate, etc.)	42	9	31	9

*Percentages are based on the number of respondents who stated that they held a degree other than the baccalaureate in health administration. Percentages do not equal 100% due to respondents holding multiple degrees.

**Includes those respondents holding M.H.A. degrees and those holding other master's degrees which specified health administration specialization.

conducted. Assuming that the respondents enrolled in graduate programs obtain their degrees, the number of respondents trained at the graduate level would reach 21%. The impact of a graduate degree in addition to the baccalaureate in health administration on career outcomes is explored in Chapter IV.

Approximately half of all respondents and 56% of those employed in the health field had some work experience in the health field before entering baccalaureate health administration programs. As shown in Table 10, most of the respondents who reported prior health-related work experience were employed in clinical positions. Over half of these respondents worked five years or less before entering the baccalaureate program, and 35% of all respondents continued their health-related work during the degree program. Forty-one percent of all respondents who had prior health-related work experience were in paid positions.

Table 10: Health-Related Work Experience Prior to Entering the Health Administration Program

	All Respondents (n=583)		Respondents Currently Employed in Health Field (n=434)	
	N	%	N	%
A. Type of Work Experience				
Administration	129	22	100	23
Clinical	233	39	160	36
Admin./Clinical	129	22	106	24
Other	92	15	68	17
B. Years Worked				
1 or less	125	21	82	19
2	89	15	58	14
3	59	11	38	9
4	41	7	30	7
5	42	8	30	7
6-10	96	17	78	18
11-15	54	9	48	11
16-20	38	6	35	8
over 20	14	2	25	5
No Response	26	4	10	2

Respondents representing AUPHA member and non-member programs were compared on the basis of health-related work experience prior to entering the baccalaureate program, whether they sought a position in the health field or not, and current employment status. No significant differences between respondents from member and non-member programs were found on these variables (see Appendix C).

EMPLOYMENT STATUS

Data indicating job-seeking behavior related to first position placement after graduation is presented in Table 11. Three-fourths of the respondents stated that they sought positions in the health field and one-fourth indicated they did not. The majority of the respondents who sought positions were in the job market less than six months. The median number of interviews is 2.7 for this group. One-third of the respondents who stated they did not seek employment in the health field after graduation cited continuing their education as a reason.

Four percent of the respondents who were employed in the health field stated that they could not find health-related employment for their first position after graduation. These respondents' first positions were in fields other than health, and subsequently they became employed in the health field. In addition, 17% of the respondents employed in the health field stated that they did not seek a first position in the health field, but obtained their first job in a field other than health. Based on these data, 21% of those employed in the health field entered the health field from a non-health position.

In addition to the above information relative to job-seeking hehavior, 18% of the respondents stated that they obtained their positions in the health field as a result of contacts made during their field experience. Nineteen percent of the respondents reported they continued working for the same health organization in which they were employed prior to graduation. These data indicate that experience in a health organization plays an important role in obtaining the first position in the health field after graduation.

Sixty-seven percent of all respondents were employed in the health field, 20% had never been employed in the health field since graduation and 12% had been but were not currently employed in the health field. In terms of aggregate employment, 87% of all respondents were employed. Thirteen percent reported that they were not employed.

The majority of the respondents not currently employed or never employed in the health field since graduation were employed in another sector of the economy. Over 50% of the respondents who were not employed in the health field stated that they plan to seek health-related employment in the future. Current employment status data is detailed in Table 12.

The majority of the respondents who were not employed reported that they were pursuing further education. Three percent (36) of the respondents said they were not employed because they were full-time homemakers. Four percent (49) were not employed and reported they were looking for work.

In assessing continuity in health-related employment, 47% of the respondents had been employed exclusively in the health field since graduation. Thirty-three percent had held jobs in the health field and in other fields since graduation.

Table 11: Variable Related to First Position Placement After Graduation from Baccalaureate Health Administration Program

	All Respondents (n=1170)		Respondents Currently Employed in Health Field (n=780)	
	N	%	N	%
A. Sought Position in Health Field After Graduation	853	73	584	75
Time in Market				
0-3 Months	440	38	361	46
4-6 Months	127	11	101	13
7-12 Months	87	7	71	9
1+ Years	32	3	21	3
Could Not Find Employment in Health Field	167	14	30	4
Total	853	73	584	75
Number of Interviews				
0	49	4	28	4
1	211	18	153	20
2-3	242	21	189	24
4-5	139	12	97	12
6-10	123	10	74	9
11-20	68	6	35	5
over 20	21	2	8	1
Total	853	73	584	75
B. Did Not Seek Position in Health Field After Graduation:	308	26	190	24
Reason*				
Continue Education	104	9	56	7
Obtained Position in Other Field	33	2	129	17
Other/Did Not State Reason	172	15	33	3

*Multiple responses allowed.

Table 12: Current Employment Status: Baccalaureate Health Administration Graduates

	All Respondents (n=1170)	
	N	%
A. Currently Employed in Health Field	780	67
B. Currently Employed in Non-Health Related Job or Organization	238	20
Position		
Administration/Management	74	6
Non-Administration/Management	164	14
Total	238	20
C. Currently Engaged in Other Activities	152	13
Continuing Education	70	6
Looking for Work	49	4
Homemaker/Parent	36	3
Total	152	13

POSITION DESCRIPTIONS OF BACCALAUREATE GRADUATES EMPLOYED IN THE HEALTH FIELD

As shown in Table 13, respondents who were employed in the health field reported middle-level management positions and corresponding titles most frequently. Although salary ranges are reported, caution must be used in drawing any conclusions on the aggregate data since it includes both recent graduates and those who have been in the field up to ten years. Analysis of salary by year of graduation indicates that salary level increases with length of time since graduation (see Appendix C).

As presented in Table 14, 46% of the respondents who were employed in the health field worked in hospital settings. Long-term care facilities and ambulatory care facilities accounted for 13% each, and six percent were employed in planning/regulatory agencies. Of the respondents employed in in-patient facilities, most worked in smaller hospitals or long-term care facilities (200 or fewer beds). The majority of the respondents in the health field were employed in the private sector, and 60% worked in small or moderate size communities.

Table 13: Position Description of Baccalaureate Health Administration Graduates Employed in Health Care Field

	Respondents Currently Employed in Health Field (n=780)	
	N	%
A. Position/Title		
CEO (Administrator, Exec. Dir., Pres.)	96	12
Assistant/Associate (Admin., Dir., V.P.)	70	9
Adminstrative Assistant/Clerk/Resident	57	7
Department/Unit: Director/Supervisor	232	30
Clinical Staff	90	12
Support Staff (non-clinical)	90	12
Research Staff	42	5
Health Planner	36	5
Sales/Consulting	28	4
Other	32	4
B. Self-Defined Position/Level		
Upper-Level Administration/Management	175	23
Middle-Level Administration/Management	285	37
Lower-Level Administration/Management	146	19
Clinical	68	9
Non-Administration/Management	66	9
Other	23	3
C. Salary*		
Less than $10,000	40	5
$10,000-11,999	39	5
$12,000-14,999	131	17
$15,000-17,999	164	21
$18,000-20,999	123	16
$21,000-24,999	122	16
$25,000-29,999	58	7
$30,000-34,999	32	4
$35,000+	39	5
No Response	32	4

*Salaries of Canadian respondents are not adjusted to U.S. dollars.

Table 14: Organizational Focus of Respondents Currently Employed in the Health Field

	Respondents Currently Employed in Health Field (n=780)	
	N	%
A. Types of Organizations*		
Hospital		
General Acute Care	329	42
Military/Veterans Admin.	12	1
Limited Populations (e.g., Psychiatric)	20	2
Other (e.g., Osteopathic)	11	1
Total: Hospital	372	46
Long-Term Care Facility		
Nursing Home	102	13
Other	3	-
Total: Long-Term Care Facility	105	13
Ambulatory Care Facility		
Speciality Agency or Clinic	41	5
Group Practice (fee for service)	40	5
H.M.O. (pre-paid service)	14	2
Neighborhood Health Center	9	1
Total: Ambulatory Care Facility	104	13
Planning/Regulatory Agency		
Planning Agency	41	5
Regulatory Agency	12	1
Professional Standards Review Org.	5	-
Total: Planning/Regulatory Agency	58	6
Educational Organization	52	6
Health Department	37	5
Association/Foundation	37	5
Consulting Firm	33	4
Management Services Firm	30	4
Insurance Carrier	21	3
Manufacturing Distributor	18	2
Research Organization	16	2
Other	49	6
B. Size of Facilities		
In-Patient Facilities		
1-100 Beds	90	11
101-200 Beds	106	14
201-300 Beds	74	10
301-400 Beds	50	6
401-500 Beds	41	5
501-1,000 Beds	79	10
1,001+ Beds	18	2
No In-Patient Facilities	291	38
No Response	31	4
C. Ownership/Sponsorship of Employing Organization		
Government: Non-Federal	168	22
Government: Federal	107	14
Private: Not-For-Profit	322	42
Private: For-Profit	168	22
D. Type of Community		
Large City/Suburb (population 500,000 or more)	310	40
Moderate Size City/Suburb (population 50,000-500,000)	293	38
Small City/Town (population 2,500-50,000)	130	17
Small Town/Rural Area (population less than 2,500)	26	3
No Response	21	2

*Maximum of three choices for each respondent.

As shown in Table 15, 34% of all respondents employed in the health field reported general administration as their primary area of responsibility and 67% reported intraorganizational functions as their major activities/tasks. The most frequently reported primary areas of responsibility included: financial management, institutional/organizational planning, personnel management, quality assurance, direct clinical services, regulation/compliance, and program evaluation.

KNOWLEDGE AND SKILL AREAS

Considering their health-related employment and reflecting on their baccalaureate health administration program, graduates were asked to identify three knowledge and skill areas for each of the following categories: least beneficial, most beneficial, should have been covered in greater depth, and should have been included but were not. Responses reported in Table 16 indicate that applied (health) administration and organization theory, general business (i.e., accounting, finance, marketing), and personnel (health) administration were the three most beneficial areas in relation to job performance (see Appendix D for a description of the categories used in the coding process). It is strongly suggested by the low number of responses in the least valuable category that all knowledge and skills acquired in the educational process were of value. Many of the respondents qualified their answers to this question with statements relating to the quality of the course or poor choice of course. Financial (health) management and general business skills appear to need greater depth in curriculum coverage. There is also an indication that management/organization theory needs to be more strongly linked to health services delivery. The responses regarding knowledge and skill areas that should have been included in the curriculum but were not suggest that financial (health) management, general business skills, and communications skills are key areas that need attention.

In separate analyses, knowledge and skill areas were examined by year of graduation, age at graduation, and academic loci. The pattern identified in these analyses are similiar to those identified in the aggregate data. Strong consistency was found when knowledge and skill areas were examined by year of graduation and age at graduation. Examination of responses according to academic locus of program revealed slight variations from the general pattern. Respondents from programs located in business administration units and interdisciplinary programs reported the need for a stronger background in health-related areas. A higher percentage of the respondents from community service based programs indicated general education and liberal arts to be of least value. Responses of graduates of programs located in allied health/health professions units were similar to the general pattern.

In addition to knowledge and skill areas related to their degree program, graduates were asked to identify the two most important knowledge or skill areas learned on-the-job since graduation. Interpersonal skills and communications skills (both oral and written) were the most frequently reported areas. A substantial number of respondents listed a knowledge or skill area that reflected individual development such as maturity, self-understanding, ability to exercise judgment, and value-clarification (See Table 17).

Table 15: Primary Areas of Responsibility and Activities/Tasks for Respondents Currently Employed in Health Field

	Respondents Currently Employed in Health Field (n=780)
	% Reporting
Primary Areas of Responsibility*	
General Administration	34
Institutional/Organizational Planning	21
Personnel Management	21
Regulation/Compliance	18
Evaluation Program Services	17
Quality Assurance	16
Financial Management	15
Operation Res./Systems Eng.	15
Clinical Services	15
Information Systems	12
Interagency Liaison	12
Health Promotion & Prevention	11
Materials Management	11
Education	10
Fund Raise/Public Relations	8
Marketing	8
Physical Plant Management	8
Accounting	6
Environmental Services	6
Sales	4
Other	9
Activities/Tasks**	
Intraorganizational Agency Functions (e.g., general administration or research etc.)	67
Activities Specific to an Organizational Unit (e.g., financial planning, medical records etc.)	54
Direct Patient/Client Services (e.g., nursing, education, sales etc.)	27
External Organizational Relations (e.g., public relations, community education etc.)	13
Department/Unit Management (e.g., Director Personnel, Head Nurse, etc.)	10
Other	3

*Percentages do not equal 100% due to multiple responses.
**This was an open question with lines allotted for two answers.

Table 16: Knowledge and Skill Areas*

	Currently and/or Have Been Employed in Health Field (n=928)	
	Number	% Reporting
MOST BENEFICIAL		
Applied Admin./Org./Mgt. (Health Emphasis)	237	25
General Business	237	25
Personnel Administration (Health Emphasis)	182	20
Gen. Admin./Org./Mgt. Theory	160	17
Financial Management (Health Emphasis)	147	16
Practicum	151	16
General Education/Liberal Arts	152	16
Communications	132	14
Health Planning	125	13
Quant./Statistics	91	10
Health Care Organization	84	9
Health Law	60	6
Med./Nursing Practice	43	5
Economics	50	5
Applied Org. Psych./Soc.	49	5
LEAST BENEFICIAL		
"Liberal Arts"	85	9
General Science (e.g., Bio., Chem.)	82	9
General Business	78	8
Sociology	47	5
History	46	5
Quant./Statistics	45	5
NEEDS GREATER DEPTH		
Financial Management (Health Emphasis)	234	25
General Business	169	18
Applied Admin./Org./Mgt. (Health Emphasis)	128	14
Personnel Administration (Health Emphasis)	105	11
Communications	103	11
Inf. Sys./Computer App.	94	10
Government Relations	87	9
Quant./Statistics	77	8
Health Law	72	8
Gen. Admin./Org./Mgt. Theory	63	7
Health Planning	52	5
Health Care Organization	50	5
Med./Nursing Practice	44	5
Economics	47	5
SHOULD BE INCLUDED		
Financial Management (Health Emphasis)	127	14
General Business	112	12
Communications	105	11
Personnel Administration (Health Emphasis)	96	10
Info. Sys./Computer App.	84	9
Government Relations	69	7
Applied Admin./Org./Mgt. (Health Emphasis)	58	6
Med./Nursing Practice	48	5

*Numbers do not correspond to the total N due to multiple responses. Knowledge and skill areas cited by less than 5% of the respondents are not reported.

Table 17: Most Important Knowledge and Skills Learned On-The-Job*

	Currently and/or Have Been Employed in Health Field (n=928)	
	Number	% Reporting
Interpersonal Skills	249	27
Communication Skills	157	17
Improve/Apply Management Skills	138	15
Management/Supervise Personnel	122	13
Individual Development	110	12
Financial Management Skills	99	11
Organization Relations/Dynamics	95	11
Information Systems	73	8
Regulation/Compliance	68	7
Specific Program Skills	61	7
Decision-Making Skills	55	6

*Numbers do not correspond to total N due to multiple responses. Knowledge and skill areas cited by less than 5% of the respondents are not reported.

SUMMARY

This chapter has presented and discussed information obtained through a survey of baccalaureate graduates in health administration. Although caution must be exercised in drawing conclusions about the population (as discussed in the previous chapter) several salient points can be made.

The respondents to this survey represent two age groups, the traditional college student in the 18-22 years old bracket and the older student who is perhaps returning to school after some years of employment, military service, or parenthood. Trends in higher education indicate that the number of people over 25 years old enrolled in undergraduate degree programs is increasing (Grant and Eidon, 1980); therefore, it is predicted that the numbers of students in this age group enrolled in baccalaureate health administration programs will increase.

Over one-half of the respondents reported that they held no academic degree other than the baccalaureate in health administration. Of the respondents who reported other undergraduate degrees, a substantial number were trained in a clinical area. The most frequently reported graduate degree was the master's in health administration.

The number of respondents who graduated since 1978 reflects growth in both the size and number of baccalaureate programs in the latter 1970's. Although many of the respondents in this study had been out of school for several years, the majority were recent graduates; thus, they may be in the early stages of their careers and educational pursuits or both. According to a recent study (AUPHA, 1981), graduates of master's degree programs in health administration reported an average of three and one-half years of work experience prior to entering graduate school. This survey was limited to health administration; however, this finding provides evidence that work experience between the baccalaureate degree and graduate study may be typical. Although the two studies are not correlated, there is an indication that if the baccalaureate graduates of 1978-81 were surveyed in the future, the percentage holding graduate degrees would be higher.

These data indicate that one-fifth of the baccalaureate health administration graduates were employed in the health field prior to graduation from the degree programs and remained in their employing organizations after graduation. This factor coupled with the number of graduates who obtained their first health-related job as a result of contacts made during their field experience highlights the role of practical experience in relation to employment status.

Respondents employed in the health field are likely to hold middle-level administrative or management positions and function primarily in general administration. They are likely to be employed in relatively small hospitals, nursing homes, or ambulatory care facilities, and most of them work in small to moderate size cities.

In general, the responses regarding educational preparation for employment reflect a high degree of satisfaction with the programs. The strongest evidence of this is found in the low percentage of respondents citing any curriculum areas that were not of value. The low number of responses related to areas that should be included in the curriculum but were not provides further support for this assertion. The percentage of respondents citing five major areas: general and applied administrative/management/organization theory with a health emphasis, financial management of health facilities, personnel administration in health facilities, general business skills, and the practicum or field experience, reflects a high level of agreement relative to the most beneficial knowledge and skill areas in a baccalaureate program. The financial management of health facilities is also rated high as needing greater depth in curriculum coverage. There is also evidence that the graduates recognize the importance of general education/liberal arts in conjunction with the health administration preparatory knowledge and skill areas.

On-the-job knowledge and skills cited by these graduates indicate that employment provides the opportunity to learn more about interpersonal skills and their own development. The graduates also indicated that they applied and improved the management skills gained through their academic experience.

A general description of graduates of baccalaureate programs in health administration, their employment status, and their perceptions of knowledge and skills inherent to health administration education and employment has been presented. The following chapter delineates factors related to career patterns.

IV. HEALTH ADMINISTRATION BACCALAUREATE GRADUATES: CAREER PATTERNS

The previous chapter provided a description or bivariant analysis of much of the relevant information in this survey. In this chapter, a multivariant approach to synthesizing the information is used.

The purpose of this analysis is to describe relationships between sets of antecedent variables and career outcomes. It was the intent of the Task Force to include in the analysis all variables specified in the model. The analysis therefore does not present the values, weights, or explanations that would be included in studies where the intent was to test for significant explanatory or inferential variables.[1]

A PERSPECTIVE ON CAREERS

In general, the term "career" suggests some continuity in jobs whose tasks possess some degree of similarity. As a recent review indicates (Otta et al., 1981), the concept of career is used equivocally, ranging from a definition of "an orderly sequence of developments extending over a period of years involving progressively more responsible roles within an occupation" (Slocum, 1975: 5) to "a normal progression that carries with it not only higher income over...time but also some prestige, which accrues with the status of having seniority or tenure" (Hall, 1975: 267-8).

One approach to the sociological study of occupational careers emphasizes a definition of career as "age variations in earnings and occupational prestige" (Sørenson, 1974: 44). Using a retrospective life history method, this work incorporated into a sophisticated mathematical modeling technique the assumption that careers actually represent many jobs held in a given sequence by an individual. A career is thus viewed as a discontinuous process of discrete shifts between a series of more-or-less predetermined occupational positions.

During the seventies, the "individualistic" model of mid-career occupational attainment emerged in sociology. This model utilized many individual characteristics--such as the social status of parents; measured intelligence; school grades; parental, peer and teacher encouragement to attend college; educational and occupational aspirations; and educational attainment--to account for over one-half of the variations in occupational status at mid-career (see, for example, Otto and Haller, 1979). However, this "individualistic" model generally omits what is readily acknowledged as an important determinant of occupational careers: structural factors which influence the opportunities and pathways open to an individual, largely irrespective of certain traits or abilities.

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[1] For example, in Table 34, "MHA" is an important variable through the first four model stages since it is "essentially independent" as required by the analytic methods used. However, in stage 5 other variables apparently serving as "proxies or covariates or colinears, etc." "steal or duplicate" the "explanatory power" and hence may lead the casual reader to interpret, erroneously, the final results.

Recently Otto and colleagues (1981) refined the generic notion of career and asserted that the definition and measurement of career must deal with the entire labor force, including a consideration of work histories, and be sensitive to the variety of institutional structures which embrace work roles. Similarly, various features of work roles beyond status, remuneration or solely upward mobility should be given attention. Finally, any definition of career should be based on empirical information obtained on both men and women.

They derive from this argument several concepts (1981: 16). A career is an individual's sequence of jobs over time. Career lines consist of the empirical regularities in job sequences that exist for a population under study over time. This conceptual variation emphasizes a non-individual, structural aspect of career patterns. Moreover, a career entry portal is a particular job that serves as an avenue of access to a career line for a substantial portion of the labor force. These portals vary in their "age-width" of entry by specific career line.

In summary, the area of career studies is interdisciplinary. Social scientists and counselors have offered a myriad of factors in hopes of explaining the patterns of work that people do over the course of their lives. Presently, one empirical base which appears promising for reaching a higher level of explanation lies within sociology. Sociological research has begun to use a life course perspective to organize the human and social development aspects of a person's work life (see Otto, Call and Spenner, 1981). The conceptual model used in the analyses reported here is based on this perspective.

Conceptual Model for Career Patterns in Health Administration

The conceptual model, shown graphically in Figure 1, is based on the design of the BGS described in Chapter II and consists of five temporally-ordered sets of variables. A glossary of variable descriptions is presented in Appendix E.

Taken as given characteristics of the respondent are certain personal background factors. These include age, sex, race, marital status, the presence of children at home and region of residence at the time of baccalaureate graduation.

Following personal background, the second stage of factors are variables relating to academic background. These include age at graduation, the holding of any academic degrees in addition to the baccalaureate in health administration (e.g., nursing, graduate degree, etc.), and the administrative locus within the university of the health administration department.

Previous work experience in the health field comprises the third stage of the sequential model. This incorporates any health-related work activity during college or any previous health experience (ranging from administrative to clinical).

Figure 1. Conceptual Model Relating Baccalaureate Graduate Survey Variables to Career Outcomes in Health Administration

				EMPLOY
AGE				
	SECDEG			YRSEXP
SEX	(NURSE,			
	MA, MHA)			ORGSPON
RACE				
	BUSADM			ORGTYPE
MARRIED				
	INTDIS	WORKCOL		JOBLEVEL
KIDHOME				
	COMSER	PREWORK	MOBILE*	JOBTITLE
REGION		(ADMIN,		
(NEAST TO CAN)	OTHER	CLINIC)	SEEKHJ	SALARY
Personal Background	Academic Background	Work Experience	Job-Seeking Behavior	Career-Related Outcomes

Legend:

AGE=Current age
SEX=Sex
RACE=Race
MARRIED=Marital status
KIDHOME=Child at home?
REGION=Census region
SECDEG=2nd academic degree
BUSADM=Academic locus: business administration
INTDIS=Academic locus: interdisciplinary
COMSER=Academic locus: community service
OTHER=Academic locus: other
WORKCOL=Work in health in college?
MOBILE=Inter-regional mobility?
SEEKHJ=Seek health job?
EMPLOY=Health employment?
YRSEXP=Years of experience
ORGSPON=Organizational sponsor
ORGTYPE=Organizational type
JOBLEVEL=Job level
JOBTITLE=Job title
SALARY=Annual salary

Note: ( ) dummy variables representing categories of variable above
* not utilized in analysis of EMPLOY
** several relationships among Career and Related Outcomes are not shown in this figure but are used in analysis (e.g., YRSEXP, SALARY)

Two indicators of job-seeking behavior after completing the baccalaureate are specified in the model. Whether or not the respondent was geographically mobile across census regions between college graduation and the BGS contact is one factor specified in this stage. The other is whether or not the respondent actually sought a job in the health industry after receiving the health administration baccalaureate.

There are three basic groups of career outcome variables which are specified together in the final stage of the conceptual model. The first is health employment status, ranging from currently employed, previously employed to never employed in the health industry. A second group consists of several critical aspects of health occupation for those currently employed in the health field. Occupational title, position level in the health organization, and two health labor market variables--sector of the health industry and type of health organization--are included. Finally, reported annual earnings are the third focus of the career outcome stage. Years of work experience in the health field is included but does not serve as a dependent variable in the analysis. Its inclusion as an independent variable in the analysis of earnings is based on previous research and theory in earnings determination.

Generally following a life course and sociological "career" perspective, this model serves as a conceptual device for organizing the analyses contributing to this study. Basically, individuals have personal backgrounds which influence certain academic experiences and progress. Both of these sets of factors sequentially combine to affect early work experience in the health field. The entry process into the health labor market begins with post-baccalaureate job-seeking behaviors. Finally, careers are defined by several different aspects of the job and its location in the health industry. These include current health employment status, years of experience (for those so employed),[2] health organization and occupational locations, and annual earnings.

Although Figure 1 specified a flowgraph of five sequential stages--generally known as a causal model--the focus here is only on the three aspects of career outcomes described above.

Statistical Methods

Two basic multivariate statistical methods are used. One is discriminant analysis and the other is multiple regression analysis within a causal modeling framework.

Several career outcome variables, such as current health employment status or health organization type, consist of nominal or, at best, partially ordered categories. It is informative to know how people in each of these categories differed on the group of antecedent variables and how well they could be correctly classified into their categories with knowledge of these background characteristics.

Discriminant analysis is a multivariate method of obtaining pertinent results (Klecka, 1980; Bibb and Roneck, 1976). It determines the ability of sets of variables to "discriminate" among individuals belonging to different categories of a given variable. In doing this, an effective means for explaining the nature of the differences among these groups or categories of individuals is provided. In addition, discriminant analysis allows each individual case to be classified (i.e., predicted classification) in categories of the criterion variable and compared with their actual category. Patterns of "misclassification" can also be informative as to how two or more categories of individuals appear to be similar on the antecedent variables.

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[2] Again, although years of experience is shown in Figure 1 as a career outcome, it is used in this report only as a predictor of annual earnings.

There are several statistics emerging from a discriminant analysis which are relevant to the present study. The linear combinations or "functions" tell us whether there are differences among groups in the set of variables considered and the number of discriminant functions comprise the dimensions multivariately summarizing group differences. Whether or not each (or any) discriminant functions are statistically significant is tested. Differences among group means on the functions (termed group "centroid") are tested. An initial consideration is whether or not groups differ multivariately on all variables before the first function is derived. (This is equivalent to a MANOVA test; see Klecka, 1980). The amount of discriminating power of each function is measured through its eigenvalue and associated canonical correlation. The eigenvalue is the proportion of variance shared by the discriminating variables and the sets of categories comprising the criterion variable. The standardized canonical function coefficients are measures of the relative differences in each discriminating variable. The group centroids are category means on each discriminant function and can be compared across groups to aid in interpreting each multivariate dimension. Finally, a cross-tablulation of actual membership by predicted membership resulting from the discriminant analysis is useful for a pragmatic overview of the analysis. Not only is a total percent of "correctly" classified cases obtained but the accuracy of classification for each group also assists interpretation of the BGS data.

This approach to discriminant analysis reflects a hierarchical procedure which conforms to the postulated specification of the model shown in Figure 1 (for an overview of this contemporary approach using graphical models, see Bray and Maxwell, 1982). The results depend upon the validity of the model. However, a less theoretically-guided procedure which has traditionally found a following in the applied statistical literature is stepwise discriminant analysis. This variant (forward inclusion via Wilks' method in this case, see Tabachnick and Fidell, 1983) relies largely on statistical criteria to reduce a set of predictors to a subset of "best" predictor variables. This set is considered "best" almost solely on statistical, rather than theoretical, grounds and offers the reader an alternate manner in which to interpret the data.

A related issue is the adequacy of the classification function (see above). Given a particular sample, the classification function weights are maximized, as sample estimates, for that sample upon which it was developed. Stepwise discriminant analysis was performed on a random split-sample of the BGS data (i.e., random subsamples A and B to determine how accurately "new cases" could be classified. Sample A served as the standardization sample while Sample B was the cross-validation sample. These results are discussed for each career outcome variable as necessary (see, for instance, Tabachnick and Fidell, 1983: 292-371).

In addition to discriminant analysis, multiple regression analysis is used. During the past 15 years, the use of multiple regression and related procedures has been integrated into a causal modeling framework (Bielby and Hauser, 1977). A set of structural equations, often estimated through hierarchical regression procedures, represents the presumed causal effect of variables which intervene between a fully independent variable and a dependent variable. The standardized regression coefficient represents the fraction of a standard deviation change in a dependent variable given a shift of one standard deviation in the independent variable. Thus, standardized coefficients are useful to compare within the same equation the relative effect of one variable to another given endogenous variable. On the other hand, when one wants to compare the effect of the same variable on the same endogenous variable across subsamples (e.g., the effects of work experience on earnings for men and women), the unstandardized coefficient is most often used.

To summarize, the conceptual model in Figure 1 serves as a theoretical guide to the analysis. Discriminant analysis and regression modeling techniques are the principal statistical methods utilized in the study of career outcomes in the BGS data. For additional information on these methods, see Klecka (1980) or Bib and Roncek (1976) on discriminant analysis and Wolfe (1980), Duncan (1975) or Kenney (1979) on structural equation modeling.

DETERMINANTS OF RETENTION IN HEALTH ADMINISTRATION CAREERS

Baccalaureate graduates' career placement processes and subsequent employment patterns have been given scant attention. An initial question of concern is what determines the degree to which a graduate will enter the health field. Secondly, how long will a baccalaureate graduate remain in the field? These questions are addressed in this section.

Sixty-seven percent of the BGS respondents reported that they were currently employed in the health field. Twenty percent reported that they had never been employed in the health field since graduation. Twelve percent stated that they had been employed in the health field since graduation but were not currently working in a health-related job or organization. Are there identifiable social characteristics which significantly distinguish these three groups of people?

The results of a discriminant analysis for the employment status variable (EMPLOY) shows in fact, a significant link distinguishing the currently, previously, and never employed. On the entire set of antecedents, there are significant differences among these three groups on all antecedents (see Table 18: test for Function 0; $< 001.$) Two significant discriminant functions are obtained. Table 19 displays the pertinent results. The first function defines a moderate association between the antecedents and employment status, about 16% according to the canonical correlation ($.370^2 = .159$). The second function can virtually be ignored since only at best three percent of the variation among employment status categories and background variables is shared once the first function is removed (see Klecka, 1980).

Table 18: Significance Tests of Discriminant Functions: Employment Status (EMPLOY)

Functions Derived	Wilke's Lambda	Chi-square	df	p
0	.842	190.3	26	.000
1	.975	27.6	12	.006

Table 19: Results of Discriminant Analysis of Employment Status (EMPLOY) on Career Antecedents

Dependent Variables	Standardized Canonical Discriminant Function Coefficients Function 1	 Function 2
SEX	-.004	-.230
RACE	.178	.257
MARRIED	.175	.134
KIDHOME	.032	-.217
AGE	.092	.255
SECDEG	.415	-.151
BUSADM	-.081	-.191
INDIS	-.395	-.071
COMSER	-.122	.544
OTHER	-.243	-.002
WORKCOL	.624	-.420
PREWORK	-.144	.069
SEEKHJ	.609	.386
Discriminant Function Statistics		
Eigenvalue	.159	.025
Relative %	86.26	13.74
Canonical Correlation	.370	.157
Group Centroids (Means)		
Currently	.224	-.066
Not Currently	.061	.418
Never	-.786	-.042

Which of the background factors are more important for making distinctions among the three employment retention categories? The standardized function coefficient and the group centroids (or group means on each multivariate function) inform us on this point.

In the main function (No. 1), the two most differentiated variables are readily interpretable: whether one worked in a health-related job during college and whether a job in the health industry was actually sought after graduation. Possessing a second academic degree and graduating from a program that is not interdisciplinary based are also related to employment retention. Demographic variables, such as sex, marital status, and so forth, do not appear to be important traits characterizing employment profiles when considered along with these additional ones.

Examining the group centroids for the first function, we can further interpret the specific nature of employment group differences. By coordinating the signs of both the standardized coefficients and the group centroids, it is learned that the currently employed differ from the others mainly by having worked in the health field during college, having sought a health job post-graduation, possessing a second degree and, by having graduated from a program that is not interdisciplinary based.[3] Those respondents who were formerly employed in the health field are less differentiated on these variables. The never employed group in the health field substantially tend not to have looked for a health job (a logical reason for not finding one!), to have college work experience in the health field, or to have a second academic degree. In addition, they are more likely to have been trained in an interdisciplinary based program.

How effective are these background factors from one's family, schooling, previous work experience, and job-seeking behavior for actually predicting subsequent employment retention in health? The results are positive. Table 20 presents the classification of actual employment status by employment status predicted from the variables used in the discriminant analysis. Each of the three groups are classified with more or less equal accuracy. Overall, 50.2% of the total number of cases are correctly classified in their health retention status. Given these three groups, we would expect a 33% prediction success on a random assignment basis. These variables give us about 17% additional predictive capability over chance alone. Finally, the table shows that most classification errors are made between adjacent cells (e.g., currently and not currently vs. never). Taken together, these results suggest that the three employment status groups represent a meaningful continuum of employment retention.

To determine the "best" subset of predictors based on a stepwise method which maximizes the multivariate F ratio (Wilke's method), the entire set of model variables was used initially on a random split-half subsample (Sample "A"). The variables which were retained in the discriminant model were: RACE, MARRIED, SECDEG, INTDIS, COMSER, OTHER, WORKCOL, PREWORK, and SEEKHJ. These two functions respectively accounted for 16.4 and 1.8% of the variation

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[3] Relative to a department located in allied health/heath professions; see Appendix E.

Table 20: Discriminant Classification Results for Employment Status (EMPLOY)

Actual Group Membership (n)	Predicted Group Membership Currently	Not Currently	Never	Total
Currently (=748)	49.2%	30.3%	20.5%	100%
Not Currently (=140)	27.9%	49.3%	22.9%	100%
Never (=224)	17.9%	28.1%	54.0%	100%

Percent Correctly Classified = 50.2%

Note: N = 1112, 58 cases were ommitted due to missing data.

in the EMPLOY variable. Substantively, while the magnitudes of these standardized coefficients shift upward, none of the major findings emerging from the hierarchical approach are changed significantly. (The pattern of coefficients relative to the group centroids, or means, also suggests that the basic nature of these relationships was not changed substantially.)

Using this subset of nine predictors and the classification functions derived from Sample A, a cross-validation was performed by attempting to classify BGS respondents in Sample B. The usual concern for this cross-validation is that the classification functions developed on one body of data will not be nearly as accurate for a new set of cases. In Sample A, a total of 48.7% of the cases were correctly classified, and 49.1% of Sample B's cases were correctly classified. This suggests that the discriminant classification results for the EMPLOY variable are consistent.

To further explore how these background factors are related to employment retention, and therefore career patterns, the EMPLOY variable was collapsed into a dichotomy (1 = currently employed, 0 = otherwise). The recoded employment status variable was regressed on variables belonging to each stage in the conceptual model guiding this study (see Figure 1).

In this analysis, region of graduation was included as a set of dummy variables (see Appendix E for details). The regression results basically confirm those arising from the discriminant analysis (see Table 21). The most important correlates (Table 21, Column 5) and determinants (Columns 1-4) of being currently employed in the health labor force are having a second degree, graduating from a program that is not interdisciplinary based, having college work experience in the health field, and actually seeking health employment upon leaving college. These are not strong determinants of full employment retention; however, they do appear to be important factors emerging from the national BGS findings.

Table 21: Regression Analysis of Recoded Employment Status (EMPLOY) on Career Antecedents

Independent Variable	Equation (1)	(2)	(3)	(4)	(5)
SEX	.036	.022	.022	.028	.049
RACE	.043	.046	.037	.036	.022
MARRIED	.055	.042	.040	.033	.105
KIDHOME	.052	.027	.022	.025	.115
NEAST	-.003	.094	.061	.056	-.044
ENC	.090*	.069*	.025	.027	.093
WNC	.048	.035	.011	.014	.045
SA	.030	.041	.031	.031	.002
ESC	-.035	-.023	.031	-.021	-.056
WSC	.056	.008	-.016	.002	.040
MTN	.074*	.033	.004	-.001	.054
PAC	.022	.039	.017	.018	.002
AGEGRAD		.021	-.024	-.004	.131
SECDEG		.126*	.104*	.114*	.172
BUSADM		-.005	-.006	-.010	.045
INTDIS		-.162*	-.152*	-.142*	-.016
COMSER		-.059	-.078*	-.076	-.058
OTHER		-.033	-.043	-.047	-.003
WORKCOL			.218*	.228*	.225
PREWORK			-.054	-.050	.151
SEEKHJ				.126*	.064
R^2	.033	.062	.086	.100	

Note: EMPLOY is recoded into a dichotomy: 1 = currently employed in health administration, 0 = otherwise. Cols. 1-4 are standardized regression coefficients; Col. 5 is the zero-order correlation between the independent variables and employment status.

*p < .05

In summary, the BGS data suggest that employment retention in the health field is positively supported by health-related employment experience during the college years, a supplemental academic degree, and training in an allied health/health professions academic locus. Other factors, such as conventional demographic characteristics, do not appear to make a substantial difference in employment retention in the face of these more discriminating factors. The largest gap among types of employment patterns lies between those baccalaureate graduates who never enter the health field and those who either have been or are currently employed in the health field.

While a dynamic analysis of career movement--from job-to-job or firm-to-firm (Sørenson, 1975; Otto et al., 1981)--is beyond the scope of the single-point-in-time, cross-sectional BGS data, several critical aspects of career patterns in health administration are examined. The factors specified in the second group of career variables include both individual factors, such as position title and the level of position within the employing health organization, and "structural" labor market variables, such as type of health organization and the non-profit or profit status of the employing health organization.

Position Titles

Age, years of health-related work experience, sex, and the academic locus of the degree program appear to be the most distinctive factors related to job position. Moreover, the position of chief executive officer (CEO) and positions on the clinical or research staffs of health organizations have the most important cleavages expressed among the career antecedents examined.

Since there are significant differences in the set of antecedent variables among various job titles (see Table 22), how many "functions" adequately describe these differences? Table 22 shows that after three functions are removed, no more are statistically significant ($p < .001$) although the fourth function narrowly misses the rejection region at the conventional *alpha* error (.05). The discriminant results presented in Table 23 display all possible functions but only the first four are interpreted.

Table 22: Significance Tests of Discriminant Functions: Job Title (JOBTITLE)

Functions Derived	Wilke's Lambda	Chi-square	df	p
0	.572	402.7	120	.000
1	.716	240.1	98	.000
2	.847	119.9	78	.002
3	.897	78.2	60	.056
4	.933	49.7	44	.258
5	.968	23,3	30	.802
6	.991	7.3	18	.988
7	.997	2.2	8	.974

The most powerful set of group differences, which comprise the first function, reflect about one-fourth the variances for the set of antecedents and categories of job titles being held in common (25.3%). Examining the discriminant coefficients and group centroids shows the CEOs, on the one extreme, and the research staff members, on the other extreme, are on ends of the continuum of differences. This continuum is composed principally of differences such that CEOs tend to be older, have more years of health-related

Table 23: Results of Discriminant Analysis of Job Title (JOBTITLE) on Career Antecedents

Dependent Variables	Standardized Canonical Discriminant Function Coefficients FUNCTION (1)	FUNCTION (2)	FUNCTION (3)	FUNCTION (4)	FUNCTION (5)	FUNCTION (6)	FUNCTION (7)	FUNCTION (8)
SEX	-.558	.171	-.202	-.148	-.146	-.146	.459	-.024
RACE	.166	.084	.081	-.049	-.076	.125	.205	-.559
MARRIED	-.094	-.244	.598	.108	.425	.250	-.060	.191
KIDHOME	-.085	.062	-.224	.481	-.024	-.014	-.302	.266
AGE	-.316	-.004	.247	.147	-.393	.071	.729	.164
SECDEG	.166	-.381	-.066	-.393	.196	-.432	-.015	.004
BUSADM	.133	.229	.381	-.483	.188	.181	-.212	.095
INTDIS	.346	.192	-.141	-.209	.252	.499	.522	.196
COMSER	.673	.082	.089	.206	-.105	-.272	.250	.127
OTHER	.344	-.109	-.422	-.026	.547	-.047	.243	.314
WORKCOL	.091	-.256	.412	.222	.424	-.248	.514	-.473
PREWORK	-.158	-.298	-.654	-.082	-.314	.634	-.698	-.194
MOBILE	.072	-.067	.272	.166	.162	-.189	.203	-.366
SEEKHJ	-.142	.231	-.020	.542	.269	.192	.016	-.220
YRSEXP	-.360	.247	-.206	-.164	.512	.210	-.266	-.297

Discriminant Function Statistics

	FUNCTION (1)	FUNCTION (2)	FUNCTION (3)	FUNCTION (4)	FUNCTION (5)	FUNCTION (6)	FUNCTION (7)	FUNCTION (8)
Eigenvalue	.253	.182	.060	.040	.037	.023	.007	.003
Relative %	41.33	30.02	9.87	6.67	6.16	3.73	1.16	0.51
Canonical Correlation	.450	.392	.237	.197	.190	.149	.084	.055

Group Centroids (Means)

	FUNCTION (1)	FUNCTION (2)	FUNCTION (3)	FUNCTION (4)	FUNCTION (5)	FUNCTION (6)	FUNCTION (7)	FUNCTION (8)
CEO	-1.029	.081	.077	.249	-.074	.118	.045	.015
Asst. Admin.	-.464	.153	-.091	-.270	.130	-.294	.120	-.029
Admin. Clerk	.137	.050	-.531	-.247	-.330	.232	.025	-.054
Dept. Dir.	.057	-.099	.225	-.156	-.069	.008	-.053	.026
Clin. Staff	.288	-1.045	-.106	.184	.070	-.049	.024	-.022
Support Staff	.446	.415	.200	.083	.231	.126	.019	-.092
Res. Staff	1.068	.496	.001	.235	-.204	-.071	.172	.110
Hlth. Planner	.048	.524	-.212	-.350	-.263	-.347	-.205	-.061
Other	-.023	.237	-.427	-.006	.414	.071	-.093	.092

Note: See Appendix E for details on JOBTITLE categories.

work experience, have graduated from programs not located in community service, interdisciplinary or "other" loci, and contrary to the simple percentage differences by sex among CEOs (see Chapter III), be female. Research staff members tend to exhibit opposite characteristics. The other position titles fall between these two extremes. Assistant administrators, for instance, tend to be more like CEOs (centroid = -.464) on these characteristics while support staff members resemble research staffers (centroid = +.446).

The second function appears to highlight the relatively unique profile of clinical staff members. These health workers are more likely to be married, have a second degree (more specifically, a degree in nursing), not from a baccalaureate program with a business administration academic locus, and have previous health work experience before and during college, but relatively fewer years of health work experience. The coefficient for whether or not a health job was sought post-graduation is interpreted as meaning that the respondent already had a health-related job of some type--given that clinical staffers tended to have considerable work experience. Unreported analyses, in addition, show that when all specific second degrees are substituted for SECDEG, having a nursing degree is the most important degree. This function represents a shared variance of about 18%.

Although the first three functions are statistically significant, examination of the fourth function provides insight relative to middle-level management position titles such as Assistant Administrator, Administrative Assistant, and Department Director. Although not statistically significant, the information is provided because of the high percentage of respondents who reported these position titles. These middle-level managers are more likely to have come from health administration programs located in a business administration or interdisciplinary setting and to have a second degree. In addition, they are unlikely to have a child at home and they did seek health positions after graduation.

The classification results show that slightly over one-fourth of the total cases can be correctly classified on the basis of their job position (see Table 24). This represents a 16% increase over that which could be obtained by chance (9 titles = 11% equal probability of randomly assigning someone correctly). For CEOs and clinical staffers, however, the classification accuracies are much higher (50.5% and 68.1%, respectively).

In the stepwise discriminant analysis using Sample A of the split-half cross-validation, the following variables were retained: SEX, MARRIED, AGE, SECDEG, INTDIS, COMSER, OTHER, PREWORK, SEEKHJ, and YRSEXP. Functions 1 and 2 remain the most substantive in their respective magnitudes of shared variance between this set of predictors and JOBTITLE, accounting for 29.3% and 13.7% (compare with Table 23). While the sheer number of coefficients and functions make a stepwise vs. hierarchical comparison difficult, a cursory study of these results (not shown) does not suggest any substantially different conclusions emerging from the BGS data.

In the cross-validation of the classification function, and standardization sample produced a percent correctly classified nearly identical to the full sample, 27.1%. The cross-validation sample yielded a moderately lower figure, only a total of 19.3% of the Sample B cases classified correctly as to their job title category. This produces some

Table 24: Discriminant Classification Results for Job Title (JOBTITLE)

Actual Group Membership (n)	Predicted Group Membership (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	Total
1. CEO (=91)	50.5%	11.0%	5.5%	6.6%	8.8%	5.5%	1.1%	6.6%	4.4%	100%
2. Asst. Admin. (=69)	21.7%	24.6%	2.9%	8.7%	13.0%	4.3%	7.2%	11.6%	5.8%	100%
3. Admin. Clerk (=53)	15.1%	5.7%	22.6%	3.8%	13.2%	5.7%	13.2%	11.3%	9.4%	100%
4. Dept. Dir. (=222)	15.8%	9.5%	10.8%	7.7%	20.3%	13.1%	10.8%	9.9%	2.3%	100%
5. Clin. Staff (=82)	2.4%	1.2%	13.4%	2.4%	67.1%	2.4%	6.1%	3.7%	1.2%	100%
6. Support Staff (=85)	8.2%	5.9%	3.5%	2.4%	12.9%	24.7%	23.5%	10.6%	8.2%	100%
7. Research Staff (=41)	2.4%	0.0%	7.3%	4.9%	9.8%	17.1%	46.3%	9.8%	2.4%	100%
8. Hlth. Planner (=35)	20.0%	11.4%	8.6%	2.9%	2.9%	0.0%	31.4%	20.0%	2.9%	100%
9. Other (=55)	12.7%	14.5%	14.5%	1.8%	10.9%	9.1%	12.7%	10.9%	12.7%	100%

Percent Correctly Classified = 27.4%

NOTE: See Appendix E for details on JOBTITLE categories.

modest caution to those who might attempt to predict a baccalaureate student's subsequent occupational title placement. The overall accuracy in the full BGS sample (27%) would itself, however, suggest this same caution.

Position Level

In addition to listing their position titles, respondents were asked to specify their relative position (self-defined) in the hierarchy of their employing organization. Analysis of factors affecting position level reveals findings similar to those related to position title. The pertinent results are shown in Tables 25-27.

Only one discriminant function describes the significant differences in job levels (Table 25). This first function represents a moderate association--23.3% shared variance--between job levels in employing health organization and career antecedents.

Table 25: Significance Tests of Discriminant Functions: Job Level (JOBLEVEL)

Functions Derived	Wilke's Lambda	Chi-square	df	p
0	.681	273.9	75	.000
1	.840	124.4	56	.000
2	.939	44.7	39	.245
3	.966	24.7	24	.421
4	.987	9.6	11	.563

The pyramidal structure of bureaucratic placement with regard to career-salient characteristics is evident (see Table 26). Upper-level professionals sequentially differ from the middle and lower-level personnel. Clinical, non-administrative, and other staff members, however, emerge together on these characteristics even further away from upper-level professionals than lower-level members. Upper-level health administrators are older and have more years of health-related work experience. Women are less likely than men to be upper-level administrators. However, if age and years of experience factors are simultaneously considered, women are more likely than men to be in the upper-levels of administration (vs. other levels) in the discriminant analysis.

Academic locus is also a differentiating variable for position level as it was for position titles. Upper-level professionals tend to originate from allied health/health professions based programs or business administration based programs more than community service or other ones with other factors like years of experience, sex, etc., jointly considered.

Table 26: Results of Discriminant Analysis of Job Level (JOBLEVEL) on Career Antecedents

Dependent Variable	Standardized Canonical Discriminant Function Coefficients				
	Function (1)	Function (2)	Function (3)	Function (4)	Function (5)
SEX	-.632	-.135	-.243	.180	.294
RACE	-.024	.045	.287	-.083	-.361
MARRIED	.127	-.175	.284	-.067	.171
KIDHOME	-.165	-.011	.757	.012	-.178
AGE	-.464	-.048	-.409	-.190	.139
SECDEG	.119	-.503	.184	-.448	.256
BUSADM	-.038	.233	.061	.206	.196
INTDIS	.123	.008	.113	.061	.502
COMSER	.444	.108	.276	.352	.344
OTHER	.329	-.390	.223	-.106	.057
WORKCOL	.086	-.197	.156	-.173	-.721
PREWORK	.083	-.129	-.383	.898	.131
MOBILE	-.061	-.047	-.026	-.129	.327
SEEKHJ	.018	.170	-.246	-.452	-.248
YRSEXP	-.383	.248	-.198	.032	-.412
Discriminant Function Statistics					
Eigenvalue	.233	.118	.028	.021	.014
Relative %	56.19	28.53	6.84	5.15	3.28
Canonical Correlation	.435	.325	.166	.145	.116
Group Centroids (Means)					
Lower	.403	.260	-.187	.133	.105
Middle	-.070	-.025	.203	.059	.020
Upper	-.746	.001	-.142	-.051	-.041
Clinical	.581	-.972	-.122	-.011	-.079
Non-Admin.	.502	.235	.038	-.418	.062
Other	.799	.768	.006	.080	-.586

The classification results show greater accuracy relative to predicted placement in upper-level, clinical or "other" positions than lower, middle or non-administrative jobs. These three have diagonal cell percentages (see Table 27) of approximately 50% or more. Overall, 31% of the total number of cases were correctly classified. This is a gain of 14% over chance prediction accuracy.

Table 27: Discriminant Classification Results for Job Level (JOBLEVEL)

Actual Group Membership (n)	Predicted Group Membership (1)	(2)	(3)	(4)	(5)	(6)	Total
1. Lower (=140)	16.4%	6.4%	17.1%	19.3%	12.9%	27.9%	100%
2. Middle (=270)	10.4%	17.0%	27.8%	17.4%	12.6%	14.8%	100%
3. Upper (=166)	9.6%	11.4%	56.0%	10.8%	4.8%	7.2%	100%
4. Clinical (=63)	14.3%	14.3%	9.5%	47.6%	7.9%	6.3%	100%
5. Non-Admin. (=65)	7.7%	6.2%	15.4%	18.5%	29.2%	23.1%	100%
6. Other (=21)	4.8%	4.8%	14.3%	4.8%	9.5%	61.9%	100%

Percent Correctly Classified = 30.9%

NOTE: See Appendix E for details on JOBLEVEL categories.
Nine (9) cases were unclassifiable.

The stepwise results produced a final equation which share a comparable degree of overall association between a subset of predictors and JOBLEVEL for the main functions (27.0% and 8.9%, respectively). The final equation included: SEX, RACE, KIDHOME, AGE, SECDEG, COMSER, OTHER, WORKCOL, and YRSEXP. The only noteworthy change in the standardized discriminant coefficients was a shift in sign for AGE in how it contributed to the first function (from negative to positive). The pattern of group centroids (means) also suggested no major shifts in the overall results vis-a-vis the hierarchical model.

In the cross-validation assessment of the classification functions, the final stepwise equation produced an accuracy of 29.5% of the Sample A cases being correctly classified. The test sample yielded a comparable figure, 26.9% being correctly placed in their respective job level category. Thus, the stepwise and cross-validation results JOBLEVEL are generally supportive of the conclusions reached via the full-form hierarchical model, with the caveat of the technical distinction between the two statistical approaches (see above).

Health Organization Type

The health labor market setting of a given job position or level is an important career outcome variable but one that has been relatively unexamined. Health administration baccalaureates work in a variety of settings: hospitals, long-term care facilities, ambulatory care units, planning and regulatory agencies, among others. Do labor market sectors reflect a differentiated labor force with respect to type of career antecedents under scrutiny in the BGS data? In relation to the above question, differences are found, but the magnitude of these differences depends on which aspect of the health labor market is considered.

Table 28 shows that only the first discriminant function is statistically significant and, hence, that among the significant set of differences in career antecedents among organization types they are adequately described through only one dimension. This dimension is composed of about 14% shared variance between antecedents and organization types (Table 29), and suggests that this dimension of health labor markets is not as differentiated on these background variables as are job titles or job levels.

Table 28: Significance Tests of Discriminant Functions: Organization Type (ORGTYPE)

Functions Derived	Wilke's Lambda	Chi-square	df	p
0	.785	174.1	60	.000
1	.891	83.0	42	.000
2	.961	28.5	26	.333
3	.993	4.7	12	.966

This first function represents the differences in the academic loci of baccalaureate programs and in gender that are found between planning and regulatory agencies and long-term care facilities as employment sectors. Relative to allied health/health professions, community service units offering baccalaureate degrees in health administration appear to have more of their alumni in the planning and regulatory sector of the health care labor market. Individuals in this sector also tend to be male, from the same census region as their alma mater, and have fewer years of work experience in health-related jobs. Hospitals, ambulatory care facilities and "other" sectors tend to fall evenly between the two extremes on this first function.

There is a great variation in the group membership prediction accuracy for health organization type (see Table 30). Overall, about one-third (32.7%) of the total cases can be correctly classified. Similar to other classification results reported thus far, this is a 13% increase over that due to chance alone. Most of this is due to the accuracy predicting employment in long-term care facilities (65.5%) and planning agencies (75.8%).

A subset of nine predictors remained in the final stepwise discriminant equation. These included SEX, RACE, MARRIED, BUSADM, INTDIS, COMSER, OTHER, MOBILE, and SEEKHJ. This reduced equation only obtained a single significant function, accounting for 19.8% of the variation among types of health organizations. The relative signs, general magnitudes and overall patterns of the standardized discriminant coefficients for these variables remain substantively similar. Generally, the statistical reduction of several variables from the discriminating equation improves the magnitudes of some standardized coefficients (e.g., INTDIS) while reducing others (e.g., YRSEXP). These changes should be evaluated on statistical, not theoretical, grounds due to the different philosophies of the stepwise and hierarchical methods.

In the cross-validation analysis of the classification functions, however, some cautionary differences did occur. Sample A produced a "correct" classification percentage of 31.0 which compares favorably with that shown for the full sample hierarchical model in Table 30 (32.7%). This 31.0% figure was based on the final, nine-variable, stepwise results. Applying these classification function weights to Sample B yielded a noticeably smaller degree of accuracy in predicting organization type: 22.5%. While this may be an artifactual result of sampling variation, it should serve to caution readers in predicting the type of employing organization.

Sponsor of Health Organization

Another important aspect defining health labor markets is what the BGS calls "sponsor" of the employing health organization. This variable represents a combination of governmental affiliation (federal vs. non-federal) and profit-making type (profit vs. non-profit). Are there important cleavages or profiles of health administration baccalaureates among these sectors of the health industry? Generally this aspect of the health labor market is more differentiated in organizational sponsor than organization type.

Table 29: Results of Discriminant Analysis of Organization Type (ORGTYPE) on Career Antecedents

Dependent Variable	Standardized Canonical Discriminant Function Coefficients			
	Function (1)	Function (2)	Function (3)	Function (4)
SEX	.462	.074	.579	-.128
RACE	.159	.039	.153	-.145
MARRIED	.173	.190	-.285	.075
KIDHOME	.113	-.228	.113	.140
AGE	.081	-.121	-.067	.383
SECDEG	-.122	.517	.170	.073
BUSADM	-.256	.517	-.235	.112
INTDIS	-.264	.019	-.491	-.381
COMSER	-.830	.075	.226	-.075
OTHER	-.236	.362	-.085	-.482
WORKCOL	-.013	.073	.156	-1.031
PREWORK	.068	-.135	-.525	.532
MOBILE	.244	-.121	-.102	-.120
SEEKHJ	.072	-.531	-.133	-.160
YRSEXP	-.206	-.328	-.339	-.006
Discriminant Function Statistics				
Eigenvalue	.135	.079	.034	.007
Relative %	53.17%	30.98%	13.24%	2.60%
Canonical Correlation	.345	.270	.181	.081
Group Centroids (Means)				
Hospital	.058	.296	.042	.011
LTC-Fac.	.839	-.401	.071	.039
Amb. Car. Fac.	-.184	-.120	-.506	.103
Pl.-Reg. Agcy.	-.859	-.405	.424	.231
Other	-.227	-.196	.003	-.100

NOTE: See Appendix E for details on ORGTYPE categories.

Two dimensions account for the major differences among the four categories of the organization sponsor variable (see Table 31). The first function is by far the dominant one, with an eigenvalue of .327 as compared to .049 for the second function. Function one is composed of a shared variance of approximately one-third of the total variances of the antecedents and organization categories while the comparable figure in function two is about one-twentieth. This fact should be kept in mind when interpreting the pattern of discriminant coefficients and group centroids (See Table 32).

Table 30: Discriminant Classification Results for Organization Type (ORGTYPE)

Actual Group Membership (n)	Predicted Group Membership					Total
	(1)	(2)	(3)	(4)	(5)	
1. Hospital (=329)	38.0%	19.5%	13.4%	23.4%	5.8%	100%
2. LTC-Fac. (=84)	9.5%	65.5%	13.1%	11.9%	0.0%	100%
3. Amb. Care Fac. (=68)	14.7%	23.5%	26.5%	30.9%	4.4%	100%
4. Pl.-Reg. Agcy. (=33)	15.2%	9.1%	0.0%	75.8%	0.0%	100%
5. Other (=215)	16.7%	21.9%	17.7%	36.7%	7.0%	100%

Percent Classified Correctly = 32.7%

NOTE: See Appendix E for details on ORGTYPE categories.

Table 31: Significance Tests of Discriminant Functions: Organization Sponsor (ORGSPON)

Functions Derived	Wilke's Lambda	Chi-square	df	p
0	.691	263.4	45	.000
1	.917	62.0	28	.000
2	.961	28.0	13	.009

What seems to define the first function is the large difference in federal government sector employees in their geographical mobility patterns post-graduation. Generally, federal employees have not moved out of the census region of their baccalaureate alma mater. They also tend not to seek a job in the health field following graduation. These federal employees also have a greater likelihood of graduating from a community service based program. Demographically, they tend to be male, married and slightly older.

Some of the differences between respondents who were employed by the federal government and those who were not could be due to the number of military personnel in the federal government sector. Two-thirds of the respondents currently employed in the health field who specified the federal government as the organization sponsor stated that they were in the military, which explains the differences relative to job-seeking behavior, sex, and age. Some colleges and universities offer baccalaureate health administration programs on military bases; therefore, the lack of geographic mobility indicates that these respondents have not changed bases since graduation.

The second statistically significant function is comprised of the small difference between the non-federal government and private profit sectors. Those working in the private profit-making sector tend to be younger at graduation but have more work experience in the health field. They also tend to have been trained in an allied health/health professions unit.

Table 32: Results of Discriminant Analysis of Organization Sponsor (ORGSPON)

	Standardized Canonical Discriminant Function Coefficients		
Dependent Variables	Function (1)	Function (2)	Function (3)
SEX	.261	.011	-.019
RACE	-.151	-.036	-.252
MARRIED	.263	.073	.141
KIDHOME	-.056	-.022	-.060
AGE	.120	-.649	-.402
SECDEG	-.002	.116	.243
BUSADM	-.058	-.454	.068
INTDIS	-.018	-.093	-.103
COMSER	.250	-.460	.600
OTHER	.026	-.497	.068
WORKCOL	.099	-.128	-.122
PREWORK	.041	.446	-.332
MOBILE	-.738	-.176	.321
SEEKHJ	-.382	.154	-.389
YRSEXP	-.160	.363	.176
Discriminant Function Statistics			
Eigenvalue	.327	.049	.040
Relative %	78.61%	11.76%	9.63%
Canonical Correlation	.497	.216	.196
Group Centroids (Means)			
Non-Fed. Govt.	-.159	-.395	-.133
Fed. Govt.	1.397	.001	.094
Non-Profit Pvt.	-.337	.066	.189
Profit Pvt.	-.071	.250	-.297

NOTE: See Appendix E for details on ORGSPON categories.

Table 33 shows that slightly less than one-half (44.7%) of these BGS respondents can be accurately classified in terms of their organizational sponsorship which is twice that expected by chance assignment. Specifically, federal employees are the most accurately classified (67.0%).

Table 33: Discriminant Classification Results for Organization Sponsor (ORGSPON) on Career Antecedents

Actual Group Membership (n)	Predicted Group Membership				
	(1)	(2)	(3)	(4)	Total
1. Non-Fed Govt. (=153)	37.9%	19.0%	24.2%	19.0%	100%
2. Fed. Govt. (=100)	10.0%	67.0%	14.0%	9.0%	100%
3. Non.-Prof. Pvt. (=309)	19.1%	13.6%	46.3%	21.0%	100%
4. Prof. Pvt. (=160)	16.9%	17.5%	31.3%	34.4%	100%

Percent Correctly Classified = 44.7%

NOTE: See Appendix E for details on ORGSPON categories.

In the stepwise discriminant results based on Sample A of the cross-validation subsamples, only one function emerged as significant. It accounted for fewer of the differences among health organization sponsors than did the full sample hierarchical model (32.7% vs. 26.4%). This reduced model contained the variables SEX, MARRIED, AGE, BUSADM, COMSER, PREWORK, MOBILE, SEEKHJ, and YRSEXP. The pattern and general magnitudes of the standardized coefficients themselves do not offer interpretations which differ substantively from those of the hierarchical model. (The group centroids also support this observation.)

Positive results were also obtained from the classification function analysis using the stepwise equation to apply to Sample B. Whereas Sample A produced a percent "correctly classified" of 41.1%, the cross-validation application to Sample B resulted in a similar figure of 42.7%. Thus, the classification analysis for organizational sponsor seems reasonably consistent across samples.

In summary, based on these analyses, personal characteristics are not as differentiated as are academic loci of programs, health-related work experience, and job-seeking behavior on occupational and labor market outcomes. Specifically, the academic locus of the program plays a consistent role in the career outcomes considered here. Some demographic influences are noted but these are not consistent or large in magnitude. On the contrary, when years of health-related work experience is related to one of these career outcomes, it is significant. Likewise, having a second degree is related to certain outcomes but not to others. A second degree is particularly related to position level within the employing health organization.

ANNUAL EARNINGS IN HEALTH ADMINISTRATION

The determinants of economic success are much-emphasized foci of study in both sociology and economics (e.g., Jencks et al., 1979; Featherman and Hauser, 1976; Mincer and Polachek, 1974). Given an equal "starting-point" of having a bachelor's degree in health administration, what factors serve to differentiate baccalaureates on the clearest index of their economic success in the field, annual earnings? Are there labor market differences in earnings---such as by region or sector[4]---not attributable to measured individual characteristics such as position title, years of experience, etc.?

Using a causal modeling approach with multiple regression analysis, we investigate issues such as these in this section. Referring to the conceptual model in Figure 1, the endogenous variable is reported annual earnings (SALARY) for those currently employed in the health industry. Five stages of exogenous variables are specified to determine earnings. In order, these are: personal background, academic background, work experience, job-seeking behavior, and finally, several of the career outcome variables themselves. In the fifth stage, the following are included: years of work experience in health (YRSEXP); categories of position title expressed as five dummy variables with the reference categories of comparison being administrative clerk, clinical staff, support staff, and research staff (see Appendix E); categories of position level expressed as dummies for "upper" and "middle"; organization type expressed as dummies for hospital and long-term care facility; and organizational sponsor implemented as dummy variables representing categories of "private profit-making" and "federal government" (See Appendix E for details on variable description).

The regression results are presented in Tables 34 and 35. The first one displays the unstandardized regression coefficients which are interpretable as actual dollar shifts in annual earnings for a change of one unit in the independent variable. In the case of dummy variables, they represent mean differences in earnings between the two groups on the dummy variable with other independent variables in the equation controlled.[5] In Table 35, the standardized coefficients are presented. These coefficients represent similar information, except rescaled into the fraction of a standard deviation in the dependent variable associated with a change of one standard deviation in the independent variable under scrutiny.

The Columns 1-5 in each table represent the "total" and "direct" effects of each variable as each stage of the model enters the regression equation. For example, the total effect of marital status (MARRIED) on earnings is shown

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[4] Another analysis--not shown here--was conducted to ascertain the effect of the differential between the Canadian and the United States dollar. Due to the small number of Canadian respondents in the data base (15), the impact of the differential was negligible and not statistically significant.

[5] This is analogous to mean differences between groups with covariates controlled in the analysis of covariances (see Gujarati, 1970).

Table 34: Regression of Annual Earnings (SALARY) on Personal Background, Academic Background, Work Experience, Job-Seeking Behavior, and Occupational Characteristics: Unstandardized Coefficients

Independent Variable	Equation (1)	(2)	(3)	(4)	(5)
SEX	3282.62*	3177.10*	3130.82*	2986.06*	1324.80*
RACE	991.12	1070.02	999.67	1003.02	405.88
MARRIED	1425.10*	946.49	1005.34	1024.63	59.94
KIDHOME	2501.64*	1372.60	1246.92*	1170.51	28.83
NEAST	-2968.40*	-2702.66*	-3148.12*	-3173.98*	62.54
ENC	-1249.05	-1958.13*	-1831.69*	-1811.96*	125.98
WNC	-1172.96	-2304.57	-2409.63	-2377.96	128.66
SA	796.23	264.78	- 84.97	13.84	1527.17
ESC	-5200.46*	-4601.09*	-5653.70*	-5565.73*	-4295.52*
WSC	-2094.56	-5238.63*	-5495.72*	-5561.22*	-2557.02*
MTN	-1628.55	-3923.23*	-3699.56*	-3680.50*	- 787.78
PAC	2941.64*	2405.81	1508.22	1685.18	3709.13*
AGEGRAD		136.28*	91.04*	84.98*	71.82*
NURSE		2443.17*	2959.96*	2912.33*	1980.20*
MA		3816.21*	4003.69*	3852.57*	1064.96
MHA		5678.96*	5497.65*	5335.55*	1030.98
BUSADM		1172.93	898.59*	1098.46	1953.29*
INTDIS		-2829.91*	-2431.06*	-2460.04*	-2433.70*
COMSER		-2013.41*	-1828.64	-2006.00*	- 782.63
OTHER		-1337.37	-1160.27	- 935.91	663.95
WORKCOL			676.16	472.86	1235.20*
ADMIN			3003.03*	2960.11*	1677.96*
CLINIC			-1003.66	- 944.57	- 348.16
MOBILE				-1133.14*	-1083.32*
SEEKHJ				- 814.25	-1241.19*
YRSEXP					1367.59*
CEO					4043.85*
ASSTAD					2510.65*
DEPTDIR					858.89
HLTHPL					887.94
OTHJOB					2857.67*
UPPER					4614.30*
MIDDLE					2466.14*
HOSPITAL					545.83
LTCFAC					-2417.33*
PVTPROF					1034.65
GOVTFED					- 272.97
R^2	.167	.268	.293	.300	.527

NOTE: See Appendix E for details on variable labels.
*p < .05

Table 35: Regression of Annual Earnings (SALARY) on Personal Background, Academic Background, Work Experience, Job-Seeking Behavior, and Occupational Characteristics: Standardized Coefficients

Independent Variable	Equation					
	(1)	(2)	(3)	(4)	(5)	(6)
SEX	.224*	.217*	.214*	.204*	.090*	.208
RACE	.040	.043	.041	.042	.016	.008
MARRIED	.097*	.064	.068	.070	.004	.210
KIDHOME	.159*	.087*	.079*	.075	.001	.253
NEAST	-.136*	-.124*	-.144*	-.145*	.003	-.130
ENC	-.067*	-.106	-.099*	-.098*	.007	.062
WNC	-.030	-.059	-.062	-.061	.003	.022
SA	.026	.009	-.003	.000	.050	.035
ESC	-.094	-.083*	-.102*	-.101*	-.078*	-.100
WSC	-.068	-.171*	-.178*	-.181*	-.083*	-.068
MTN	-.058	-.140*	-.132*	-.132*	-.029	-.055
PAC	.087*	.072	.045	.050	.110*	.141
AGEGRAD		.160*	.107*	.100*	.084*	.180
NURSE		.108*	.131*	.129*	.088*	.055
MA		.129*	.135*	.130*	.036	.119
MHA		.210*	.203*	.197*	.038	.226
BUSADM		.041	.031	.038	.068*	.107
INTDIS		-.121*	-.104*	-.105*	-.104*	-.128
COMSER		-.134*	-.122*	-.133*	-.052	-.030
OTHER		-.049	-.042	-.034	.024	-.091
WORKCOL			.046	.032	.084*	.126
ADMIN			.137*	.135*	.077*	.208
CLINIC			-.057	-.052	-.019	-.085
MOBILE				-.072*	-.069*	-.108
SEEKHJ				-.048	-.073*	-.151
YRSEXP					.399*	.446
CEO					.182*	.307
ASSTAD					.098*	.193
DEPTDIR					.054	-.014
HLTHPL					.026	-.048
OTHJOB					.104*	.045
UPPPER					.265*	.404
MIDDLE					.163*	.061
HOSPITAL					.037	.024
LTCFAC					-.103*	.107
PVTPROF					.059	.117
GOVTFED					-.013	.037

NOTE: See Appendix E for details on variable labels. Columns 1-5 are regression coefficients; Column 6 is the zero-order correlation between the independent variable and annual earnings.

*$p < .05$

in Column 1. Column 1 in Table 34 shows that married BGS respondents earn, on average, $1,425.10 per year more than unmarried respondents with sex, race, the presence of children at home, and region of the country controlled. With academic background taken into consideration, Column 2 shows that this net difference in marital status drops to $946.49 annually. Using the causal sequence specified in Figure 1, this can be interpreted as meaning that these indicators of academic background, acting as intervening variables, "transmit" approximately one-third of the total effect that marital status has on annual earnings ($1425.10 - $946.49 = $478.61; 478.61 / 1425.10 = .336 = 33.6%). By the time that all five stages are entered, as shown in Column 5, about 96% of this total effect has been transmitted through intervening mechanisms ($1425.10 - 59.94 = 1365.16; 1365.16 / 1425.10 = 95.8%).

Personal Background

The influence of personal characteristics as measured in the BGS data are modestly related to earnings. About 17% of all differences in reported salary can be attributed to variations of traits like race, gender, marital and family status, and region. The stronger influences (see Table 35) come from gender, family status with regard to children at home, and residing in the Northeast.[6] However, the dollar metric coefficients shown in Table 34 are also directly interpretable.

There are clear regional labor market differences in earnings. This set of regional dummies measures average inter-regional differences relative to the Middle Atlantic states and the range of average net earnings encompasses approximately $8,142 (i.e., the net difference between ESC and PAC). The BGS respondents in the East South Central states incur a five-thousand dollar deficit while their counterparts in the Pacific region enjoy almost a three-thousand dollar increment in comparison to those in the Middle Atlantic states.

Married health workers earn about $2,500 more per year than the unmarried while those with children at home add approximately another $1,400 in annual earnings. These effects, however, are largely (96-98%) due to these respondents being in more advantaged career positions as revealed in Column 5, Table 34. However, the effects of sex and race are not as completely mediated by the subsequent stages in the model and remain "unexplained" within the context of this model. Whites average about $1,000 more than non-whites in earnings but this effect is not statistically different from zero, largely because of the small proportion of non-whites in the BGS sample. Men earn about $3,000 more than women, with the other personal factors held constant. These differences remain in force until career outcomes are considered (Table 34, Col.5) which transmit 59.6% of the total sex effect.[7]

Academic Background

With the eight measures of academic characteristics added to the regression equation, about a ten percent increment is obtained in the explanation of variations in annual earnings among health administration baccalaureate graduates. These variables have significant effects on earnings and address two important issues raised at the outset of this section.

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[6] Relative to the Middle Atlantic States; See Appendix E.

[7] Sex and income variables are considered in greater detail in a subsequent section of this report.

What is the relative monetary reward of an investment in a second academic degree? With other factors in the equation controlled, three specific degrees have significant and important effects on earnings. In net dollars, a second degree in nursing is worth about $2,443.17 over the reference category (see Appendix E). The payoff of the master's degree in health administration is impressive, a total of $5,679, which is almost two thousand ($1,862) dollars over the comparable coefficient for a master's degree in other disciplines (=$3,816).[8] While the nursing degree has a lower economic pay-off than a graduate degree, the effect of holding a graduate degree is exhausted to statistical nonsignificance when the career outcomes enter the equation (Table 34, Col. 5). The net effect of a nursing degree in the final equation is about twice that for a master's degree. This indicates that the process by which investments in additional academic credentials increase earnings differs by type of degree.

Academic locus of the baccalaureate degree program also affects post-graduate earnings. Relative to obtaining a health administration baccalaureate in an allied health/health professions unit, a penalty is incurred for being trained in either an interdisciplinary or community service based program. These deficits range from two (-$2,013) to almost three thousand (-$2,830) dollars on an annual basis. There is a small, though not statistically significant, advantage ($1,173 annually) to graduating from a program located in a business administration academic locus.

What is impressive about the deficits incurred by alumni from the interdisciplinary and community service based programs is that they persist even with other factors held constant. But this indirect influence differs between the two academic loci. The deficit associated with an interdisciplinary based program persists even with all other variables controlled. The community service effect persists until the career outcome variables are taken into consideration. Column 5 (Table 34) shows that this coefficient is substantially reduced. On the other hand, when the full-form equation is estimated, the small and statistically nonsignificant influence of a business administration locus becomes a substantial advantage in remunerative terms ($1,953) over the allied health/health professions locus.

Previous Work Experience

The three work experience variables add little to the overall explanation of earnings, increasing the coefficient of determination (R^2) by about three percent. This is not to say that previous work experiences do not make important contributions to annual earnings. On the contrary, having previous experience in some type of administrative position is worth about $3,003 in the metric coefficient and is a substantive determinant of earnings in the standardized results (Table 35, Col.3). Previous health-related work during college or prior experience in a clinical position, have no significant effects.

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[8] As discussed in Chapter III, respondents who specified that they held a master of health administration degree or a health administration specialization with another degree title were included in the MHA category. It is not known to what extent health administration coursework is contained in other master's degree programs.

As discussed previously, the position one holds, the specific labor market sector of the employing health organization, and number of years experience in the health field are substantially related to reports of annual earnings. When added to the earnings equation, the career outcomes contribute almost 23% to the coefficient of determination (R^2). In all, this set of determinants accounts for about half (52.7%) of all differences in annual earnings.

As other researchers have found, years of experience is an important determinant of earnings (See Mincer, 1974; Polachek, 1975; Hofferth et al., 1978). For BGS respondents, each additional year of experience is worth an estimated $1,367. In standardized terms, this variable has the single largest effect, either in total or direct form, on earnings of any of the factors in the equation.

Relative to other positions (see Appendix E), CEOs, Assistant Administrators, and "Other" positions receive significantly higher salaries. These effects are greater than other variables in the model, such as graduate degrees, geographic region, personal characteristics, or academic background.

Location within the health organization itself, net of position title, also brings monetary rewards. Being in an upper-level stratum, yields an average of $4,614 per year more in salary regardless of position title. A middle-level position translates into about $2,500 more per year. Both of these are statistically and substantively significant (see Table 35).

Some labor market effects are observed. As compared to planning or regulatory agencies and ambulatory care facilities, being employed in a hospital is related to only a small ($546) positive increment in earnings that proves to be substantively nonsignificiant. However, long-term care facility employees incur over a $2,000 deficit for working in such firms. Again, this effect is not due to differences in work experiences, position title, organization level, or any of the other variables controlled in the earnings equation. The other labor market variables---dummies for private-profit or federal government sectors---do not obtain either a correlation or an effect on earnings once other factors are taken into account.

In summary, factors which make a substantial difference in earnings in the health field are identified. Using a working assumption that BGS respondents began from a common academic "starting point," a baccalaureate degree in health administration, the question of what factors differentiate respondents in their economic success in the health field was the basis for the analysis. The factors considered here account for slightly over one-half (52.7%) of all the differences among BGS respondents in their reported annual earnings. This is an amount of individual earnings determination comparable to other findings in the social sciences (see Treiman and Terrell, 1975; Suter and Miller, 1973).

The specific results generally conform to current sociological research findings on determinants of personal earnings. The single most important determinant of annual earnings is years of experience. Net of all other variables, each year of work experience is estimated to be worth a return of $1,367 annually. Following closely are being in the upper levels of the employing health organization and being in a chief executive officer position. With the exception of the modest deficit associated with working in a long-term health care facility, "structural" labor market effects proved less powerful than the aforementioned "individual" influences. In real-dollar amounts, however, some important inter-regional "labor market" differences in the health field were observed. In addition, variations in annual earnings were detected relative to academic locus of degree program and holding a second academic degree, particularly in nursing.

JOBS, GENDER AND PAY: SEX INTERACTIONS IN DETERMINANTS OF EARNINGS

Working men and women in the United States do not receive the same economic reward for their labor. Social scientists have attempted to unravel the specific empirical causes of this inequality (e.g., Suter and Miller, 1973) but the basic finding remains. In general, for the period of 1969 to 1982 women have averaged between 41 and 66 cents for every dollar that "comparable" men make (Suter and Miller, 1973; Newsweek, 1982). Part of the analytic problem, however, is ensuring the comparability of the two groups of workers on factors which cause differences in earnings.

How do sex differences in earnings within the field of health administration compare to the United States labor force at large? Within the same general position title, how do men and women differ in pay? To what extent can the sex gap in earnings be attributed to differences in other measured factors related to earnings? In turn, does the process of earnings determination differ for men and women? In this section, we begin to address these questions within the limits of the BGS data.

The sex gap in annual earnings is estimated to be $4,032.31; men average $21,111.96 in the BGS data while women report annual salaries of $17,079.65. This gap represents a female-to-male ratio of .809 or female earnings averaging about 81 cents to the typical "male dollar". While this gap is more equitable than estimates for the United States labor force at large, the $4,000 gap does represent a significant sex difference in earnings of health administration baccalaureates.

We examine the sex differentials in pay by position title in Table 36. Using a two-way analysis of variance, it is clear that both health position and gender are related to significant differences in earnings. The fact that the interaction of sex and position title is not significant reflects the pattern of means displayed in Table 36. At each position group, women consistently report lower average earnings than men. Position title accounts for 18.7% of the variation in yearly salary while sex is associated with an additional 7.6%.

The sex ratio of average earnings is also computed for each position title group. The gap between man and woman is lowest in the chief executive position (95%) and highest in the "other" category of miscellaneous jobs (78.5%). The middle-level positions exhibit a sex inequity ranging between these two extremes. Thus, at the highest positions, women average only five percent less than "comparable" men in the same positions. On the other extreme, miscellaneous positions show a significantly greater disparity, with women earning only 78.5% of what "comparable" men do.

Table 36: Two-Way Analysis of Variance: Earnings by Job Title and Sex

Job Title	Unadjusted Means Male	 Female	Difference	Female/Male Ratio
CEO (=93)	$25,424.16 (=73)	$25,149.50 (=20)	$1,274.66	.950
Asst./Assoc. Admin. (=69)	24,275.01 (=49)	21,749.52 (=20)	2,525.49	.896
Admin. Asst./ Clerk (=55)	17,449.60 (=30)	14,619.54 (=25)	2,830.66	.838
Dept./Unit Dir. (=222)	20,219.13 (=107)	17,825.59 (=115)	2,393.54	.882
Clinical Staff (=87)	18,036.57 (=27)	15,507.94 (=60)	2,528.63	.860
Support Staff (=88)	17,249.50 (=32)	14,767.41 (=56)	2,428.09	.856
Research Staff (=41)	17,457.88 (=12)	15,827.10 (=29)	1,630.78	.907
Hlth. Planner (=36)	18,446.87 (=19)	16,617.15 (=17)	1,829.72	.901
Other (=54)	22,265.14 (=32)	17,476.89 (=22)	4,788.25	.785
Total (=745)	$21,111.96 (=381)	$17,079.65 (=364)	$4,032.31	.809

ANOVA Results

Source	SS	df	MS	F	P
Job title	.54545736E 10	8	.68182170E 09	15.958	.001
Sex	.10335908E 10	1	.10335908E 10	24.190	.001
Interaction	.10487426E 09	8	13109284.	0.307	.964
Residual	.31062663E 11	727	42727184.		
Total	.39648870E 11	744	53291488.		

NOTE: See Appendix E for JOBTITLE categories.

One of the traditional liabilities associated with womens' work histories is that they tend to exit the labor force during the childbearing years, perhaps to re-enter at a later date. Thus, one effect of this pattern is on an "individual" factor related to earnings: amount of experience accumulated. BGS men and women differ in years of experience and in the expected direction. Men average 3.50 years ($s = 2.20$) while women average 2.79 years ($s = 2.01$). This difference is statistically significant ($t = 4.71$, $p < .001$). Recalling that years of experience is the single largest correlate of annual earnings in these data, to what extent do different amounts of professional experience account for the sex gap in pay? With the unadjusted sex differential at $4,032.31, controlling for years of experience reduces this gap to $1,794.73 (not shown in table). The male-female differences in experience accrued is thus associated with a 44% reduction in the gap in annual earnings.

One issue related to this interpretation is the question of whether or not women get as much of a return in earnings on accumulated experience. The zero-order correlation between years experience and earnings is $r = .440$ for males and $r = .395$ for females. Thus, males obtain only a slightly greater return on experience in annual earnings than females.

In the previous section, the total effect of sex on earnings, the mean difference between men and women, is $3,282.62 (see Table 34). When the equation reaches its fullest form (Col. 5), this effect is reduced to $1,324.80. In all, these variables reduce the total effect by 59.6% and offer some explanation as to why women with baccalaureate degrees in health administration earn less than men with similar degrees. These additional variables account for over two-thirds (67.1%) of the unadjusted mean differences by sex in annual pay.

The degree to which such comparisons are valid depends in part upon the degree that each exogenous variable influences earnings similarly for men and women. This essentially involves a search for sex interactions in the regressions reported in Table 34. We used multiplicative terms to re-estimate these regressions, testing the homogeneity of slopes (see Gujarati, 1970), and present the unstandardized coefficients by sex in Table 37. (Those that differ significantly between males and females are indicated in the legend.) Few significant differences in these coefficients were revealed. Closer inspection indicates that among those that do vary significantly by sex, the direction of the magnitude difference favors women. A clear exception to this is the deficit encountered by women with children at home which appears to enhance a man's earning power; other relative differences favor women. For instance, the "labor market" deficits encountered by BGS respondents living in either West South Central or Mountain regions are felt more acutely by men than women in those same regions. The pay-off of an investment in the master's of health administration degree is greater for women than for men. The relative penalty of baccalaureate training in a community service based health administration program is larger for men than for women. On the other hand, a second exception to this pattern is that men's earnings benefit significantly more from a middle-level health organization position.

To compare the relative magnitudes of these coefficients within the same sample (e.g., the relative effect of health employment during college versus marital status for males), the standardized coefficients are presented for males in Table 38 and females in Table 39. These tables also include the correlations of each independent variable with earnings.

Table 37: Annual Earnings (SALARY) Regressions By Sex: Unstandardized Coefficients (Male results in parenthesis)

Independent Variables	Equation (1)	(2)	(3)	(4)	(5)
RACE	1180.87	1323.31	1410.30	1458.27	1527.22
	(727.50)	(1450.90)	(1030.37)	(1063.39)	(-180.18)
MARRIED	1085.65	335.16	327.85	448.71	- 444.40
	(1319.63)	(843.01)	(1096.79)	(1084.75)	(206.63)
KIDHOME	1066.75#	- 698.38#	- 670.33#	- 665.09#	- 625.43
	(3605.02)	(2711.05)	(2351.78)	(2238.65)	(278.36)
NEAST	-2638.31	-1284.54	-1446.31	-1210.79	501.23
	(-3026.35)	(-3731.32)	(-4352.45)	(-4493.72)	(109.01)
ENC	188.60	- 865.46	- 365.08	- 238.59	144.73
	(-2241.06)	(-2986.06)	(-3024.17)	(-3043.60)	(54.34)
WNC	- 927.37	-2334.22	-1828.05	-1511.35	- 87.36
	(-1432.99)	(-2852.86)	(-3348.07)	(-3487.47)	(-390.32)
SA	973.35	1105.95	1267.58	1516.61	2246.71
	(772.02)	(-238.02	(-1020.40)	(-1002.10)	(784.09)
ESC	-3749.62	-2291.93	-2342.74	-2196.64	-1720.29
	(-6088.08)	(-5640.27)	(-7323.54)	(-7658.54)	(-6348.19)
WSC	- 439.37	-2981.63#	-2872.22#	-3115.92#	-2064.82
	(-4927.85)	(-9003.50)	(-9106.42)	(-8841.21)	(-3094.58)
MTN	422.01#	-1747.84#	- 678.39#	- 334.77#	782.90
	(-6169.38)	(-6582.60)	(-7468.60)	(-7907.46)	(-4052.60)
PAC	2228.34	1194.13	875.39	1273.95	1921.40
	(3100.96)	(1355.54)	(- 46.74)	(25.73)	(4262.28)
AGEGRAD		155.59	115.93	101.39	63.60
		(200.66)	(151.59)	(147.97)	(132.61)
NURSE		2398.05	2825.62	2573.52	2157.86
		(3528.00)	(4097.05)	(4050.77)	(1936.74)
MA		3625.65	3904.71	3728.90	828.56
		(4082.11)	(4123.06)	(4001.91)	(1562.54)
MHA		9456.94	9061.46#	8441.01	2686.22
		(4449.41)	(4253.23)	(4216.83)	(385.10)
BUSADM		328.41	363.34	595.05	1269.21
		(2552.38)	(2042.01)	(2287.71)	(2678.36)
INTDIS		-3057.49	-2356.04	-2395.99	-2446.75
		(-1722.54)	(-1586.93)	(-1606.29)	(-2397.14)
COMSER		- 532.42#	90.00#	93.91#	- 208.83
		(-2924.38)	(-2995.33)	(-3241.04)	(-1085.91)
OTHER		-1117.35	- 903.94	- 644.96	55.89
		(-1533.19)	(-1487.89)	(-959.25)	(1623.64)
WORKCOL			330.25	80.96	946.42
			(741.62)	(576.14)	(1232.74)
ADMIN			2741.97	2576.78	1534.27
			(3615.27)	(3686.12)	(1982.57)
CLINIC			-1152.89	-1003.40	- 260.43
			(- 852.52)	(- 813.41)	(- 363.00)

Table 37: Annual Earnings (SALARY) Regressions By Sex: Unstandardized Coefficients (Male results in parenthesis) (cont.)

Independent Variable	Equation (1)	(2)	(3)	(4)	(5)
MOBILE				-1034.18	- 802.56
				(-1187.30)	(-1408.53)
SEEKHJ				-1549.17	-1433.14
				(- 349.28)	(-1401.77)
YRSEXP					1258.86
					(1436.26)
CEO					4790.74
					(3141.58)
ASSTAD					3145.96
					(1939.90)
DEPTDIR					1045.40
					(641.67)
HLTHPL					1099.50
					(778.81)
OTHJOB					2315.41
					(3312.14)
UPPER					4054.23
					(5520.78)
MIDDLE					1774.68#
					(3676.24)
HOSPITAL					713.60
					(269.57)
LTCFAC					-2275.88
					(-2242.05)
PVTPROF					751.85
					(1245.62)
R^2	.052	.207	.232	.244	.472
	(.160)	(.261)	(.291)	(.296)	(.533)

NOTE: See Appendix E for details on variable labels.
# Unstandardized regression coefficients are significantly different ($p < .05$) between sexes.

Table 38: Annual Earnings (SALARY) Regressions in Standard Form for Males

Independent Variables	Equation (1)	(2)	(3)	(4)	(5)	(6)
RACE	.028	.055	.040	.041	-.007	-.010
MARRIED	.084	.054	.070	.069	.013	.231
KIDHOME	.233*	.175*	.152*	.145*	.019	.278
NEAST	-.134*	-.165*	-.193*	-.199*	.005	-.132
ENC	-.129	-.172*	-.175*	-.176*	.003	-.004
WNC	-.041	-.082	-.096	-.100	-.011	.007
SA	.021	-.007	-.029	-.029	.023	.060
ESC	-.113*	-.104	-.135	-.142*	-.117*	-.130
WSC	-.115*	-.211*	-.213*	-.207*	-.072	-.093
MTN	-.139*	-.148*	-.168*	-.178*	-.091	-.103
PAC	.101*	.044	-.002	.000	.139*	.164
AGEGRAD		.184*	.139*	.136*	.122*	.169
NURSE		.079	.092	.091	.044	.092
MA		.146*	.148*	.143*	.056	.094
MHA		.194*	.185*	.184*	.017	.180
BUSADM		.085	.068	.076	.089	.152
INTDIS		-.072	-.066	-.067	-.100	-.102
COMSER		-.185*	-.189*	-.205*	-.069	-.053
OTHER		-.043	-.042	-.027	.046	-.134
WORKCOL			.048	.037	.080	.109
ADMIN			.163*	.166*	.089*	.212
CLINIC			-.041	-.039	-.017	-.070
MOBILE				-.075	-.090*	-.070
SEEKHJ				-.020	-.080	-.089
YRSEXP					.413*	.440
CEO					.612*	.276
ASSTAD					.085*	.160
DEPTDIR					.037	-.073
HLTHPL					.022	-.080
OTHJOB					.122*	.046
UPPER					.339*	.373
MIDDLE					.235*	.010
HOSPITAL					.018	-.019
LTCFAC					-.016*	.055
PVTPROF					.069	.130
GOVTFED					-.047	-.023
R^2	.160	.261	.291	.296	.533	

NOTE: See Appendix E for variable labels. Cols. 1-5 are standardized regression coefficients; Col. 6 is the zero-order correlation between the independent variable and earnings.

$*p < .05$

Table 39: Annual Earnings (SALARY) Regressions in Standard Form for Females

Independent	Equation					
Variables	(1)	(2)	(3)	(4)	(5)	(6)
RACE	.052	.062	.066	.069	.072	.036
MARRIED	.085	.026	.026	.035	-.035	.114
KIDHOME	.065	-.045	-.043	-.043	-.041	.096
NEAST	-.138*	-.067	-.076	-.064	.026	-.148
ENC	.010	-.045	-.019	-.012	.008	.038
WNC	-.022	-.056	-.043	-.036	-.002	-.006
SA	.039	.044	.051	.061	.090	.036
ESC	-.073	-.047	-.046	-.043	-.034	-.078
WSC	-.020	-.133*	-.128*	-.139*	-.092	.001
MTN	.022	-.089	-.035	-.017	.040	.058
PAC	.063	.034	.025	.036	.055	.071
AGEGRAD		.243*	.181*	.159*	.099	.268
NURSE		.155*	.182*	.166*	.139*	.201
MA		.124*	.133*	.127*	.028	.116
MHA		.259*	.248*	.231*	.073	.219
BUSADM		.013	.015	.024	.051	.067
INTDIS		-.149*	-.114	-.116	-.119	-.184
COMSER		-.014	.007	.007	-.016	.022
OTHER		-.055	-.044	-.032	.003	-.002
WORKCOL			.026	.006	.074	.166
ADMIN			.140*	.132*	.078	.209
CLINIC			-.079	-.069	-.018	-.052
MOBILE				-.071	-.055	-.073
SEEKHJ				-.104	-.096	-.233
YRSEXP					.400*	.395
CEO					.168*	.269
ASSTAD					.110*	.178
DEPTDIR					.077	.080
HLTHPL					.036	-.016
OTHJOB					.092*	.016
UPPER					.212*	.340
MIDDLE					.132*	.108
HOSPITAL					.056	.052
LTCFAC					-.090	.107
PVTPROF					.048	.095
GOVTFED					-.015	.025
R^2	.052	.207	.232	.244	.472	

NOTE: See Appendix E for details on variable labels.

$^*p < .05$

SUMMARY

In this chapter, information about the career patterns of baccalaureate graduates of health administration programs was presented and discussed. A conceptual model which links personal characteristics, academic background, work experience, and job-seeking behavior to career outcomes was developed. A multivariate approach was used to synthesize the relevant data. In this section, a brief summary highlighting the major findings is presented.

Health Employment Status. The three statuses: never employed, previously but not currently employed, and currently employed appear to be a meaningful continuum on the background factors related to differences among them. The largest gap among these types of health administration employment patterns is between those baccalaureates who never enter the field and those who either have been or are currently employed in health.

Based on the analysis undertaken for this report, the BGS data suggest that retention in a health administration career is positively supported by: (1) health-related work experiences prior to entering the degree program; (2) an additional academic degree supplementing the baccalaureate in health administration, especially in a health-related field; and (3) receiving the baccalaureate degree from a program located in an allied health/health professions academic unit.

Occupation/Labor Market Position. The four facets of occupation and labor market position studied here are interrelated yet distinct aspects of career outcomes. We find that both structural---especially academic locus of the program---and individual factors tend to shape these career outcomes and trajectories among BGS respondents. The most important individual factors are years of work experience, sex, and job-seeking behaviors. With the exception of gender, demographic influences on career outcomes do not tend to be consistent or of large magnitude.

These important influences do not affect each of the career outcomes in a fully consistent manner. This cautions against a simplistic view of the career entry and development process of health administrators.

Earnings. The BGS data show that there are indeed identifiable factors which make substantial differences in economic standing among health administration baccalaureates. An impressive degree of variation, by social science standards, was accounted for using the conceptual model developed for the study of career patterns in health administration. These data generally conform to research findings on individual earnings (e.g., the single most powerful determinant of annual earnings is years of experience). Position title and level in the organization are also important contributing factors to earnings. In general, labor market factors do not seem as important as other factors; however, if one considers inter-regional variations in earnings as proxies for "labor markets" then these effects are significant and impressive in real dollar amounts.

Like occupation/labor market outcomes, earnings were also significantly influenced by academic locus of the baccalaureate. These influences are present with a complex set of controls including years of experience.

Unequal patterns in earnings were found to exist between males and females. Male respondents annually earn an average of $4,032 more than female respondents. Controlling for other factors related to annual earnings, particularly years of experience, reduces the sex gap in annual pay by two-thirds; however, one-third of the variance remains unexplained.

V: KNOWLEDGE AND SKILL AREAS: PRACTITIONER PERSPECTIVES

The previous chapters focused on data collected through survey research on graduates of baccalaureate health administration programs. In order to assist the AUPHA Task Force on Undergraduate Education in assessing the data, administrators representing various types of health care organizations met with the Task Force in Cincinnati, Ohio on October 16-17, 1981. The purpose of this meeting was to exchange information regarding the preparation of baccalaureate health administration graduates and their positions in the fields of practice. The role of the practitioner/employer panel was to provide insight from various fields of practice regarding knowledge and skill areas required for successful job performance. The key question addressed by the practitioner panel was: What knowledge and skills does an employer expect of a baccalaureate graduate in order to function in the field of health administration practice?

The practitioner/employer panel was formed from a list of nominations by the Task Force and professional practice associations. Each panel member had prior experience with baccalaureate health administration students or graduates. The Panel members were:

Mr. Errol Biggs, Ph.D.
President
Presbyterian Medical Center
Denver, Colorado

Mr. Stuart Blakely
Administrator
Keene Clinic
Keene, New Hampshire

Mr. Wally Miller
President
Millers Merry Manor
La Grange, Indiana

Mr. John Roberts
Executive Director
Thames Valley District Health Council
London, Ontario

Mrs. Eddie Sellers
Administrator
West End Health Center
Cincinnati, Ohio

Mr. Arnold Thomas
Nebraska Hospital Association
Lincoln, Nebraska

Using a nominal group process, the panel identified knowledge and skills expected of baccalaureate health administration graduates and inherent to successful performance in mid-level (Department Director, Unit Manager, Assistant Administrator, etc.) health administration positions. (The Task Force on Undergraduate Education did not participate in this process and was not present at the time.) Although panel members were sent preliminary descriptive data on baccalaureate graduates from the survey, results from the knowledge and skill section of the survey were not included as a precaution against bias. The panel was instructed to individually list their perceptions regarding knowledge and skills without priority. The individual perceptions were shared. This stage of the exercise produced a list consisting of 47 knowledge and skill areas.

After listing the general areas, the panel began a discussion which resulted in clarification and definition of terms. Identification of categories or groups of knowledge and skills was then completed. The panel members individually ranked the categorized areas by secret ballot. The individual rankings were tabulated and resulted in the following prioritized list, beginning with most important. Clarifications and definitions of initial areas are in the subsets.

Leadership Skills:

"guts", control, responsibility, cooperation/political action, persuasion, manipulation (non-negative), intellectual honesty, (fairness, honesty, objectivity), move to organization's goals, set directions (where you want to go and to follow-through), planning (mission setting), organizing, delegating, controlling, evaluating, interpersonal relations

Human Resource Management:

employee motivation, interpersonal relationships, communications, self-evaluation/appraisal, observations, group dynamics, interviewing skills (way to derive knowledge), analytical deductions, inventory control (human resources), planning, budgeting, skill of setting personal goals

Communications:

interpersonal, professional relations, group dynamics, writing

Financial Management:

cash flow, credit and collection, statistical analysis, budgeting, cost analysis, pricing policies, inventory control, productivity (analysis of units/labor hours etc.), quality control, third party reimbursement, technology, observation, analytical deduction, return on investment, grantsmanship

Knowledge of, Use of, and Implications of Technology:

office hardware (computers, word processors, telephone intercom, etc.), writing (what goes into the system), clinical (scanner, digital X-Ray, tele-health, etc.), space and time (delivery of services, exchange of ideas, etc.)

Social/Environmental/Political Determinants of Health and Disease:

health status, knowledge base of health systems (domestic and other), application and implementation of health status and knowledge (ask why), political action

Organization (How/Why Organizations Are Structured and Operate):

general, health care, for-profit (tax paying), not-for-profit (tax exempt), external organizational relations, coordination with other organizations

Marketing (Understand the Health Care Market):

physician referral, public relations, patient relations, utilization of health care services, organizational (knowledge of various types of organizations in health industry, control of organizations, mission, purpose, etc.), competition, technology, skill of setting personal goals, pricing policies, quality assurance, statistical analysis, work-flow analysis, quality control, cost analysis

Educated Human Being:

"what else is going on in the world," internal environments, competition, curiosity, observation, deduction, analytical

Management of Physical Assets:

housekeeping, property management, asset management, purchasing, control

To ascertain the level of agreement between employers' and baccalaureate graduates' perspectives on knowledge and skill areas, each panel member completed a questionnaire based on the categories used in coding the knowledge and skill section of the BGS. The questionnaire was mailed prior to the October meeting and collected before the nominal group process began. (See Appendix F for a copy of the questionnaire and cover letter.) The results of the practitioner's rankings (Table 40) were presented following the nominal group process portion of the meeting. These results were used in conjunction with the group process results to substantiate the survey data and discuss with Task Force members development of curriclum models utilizing a competency based approach. Comparison of the data on knowledge and skills inherent to employment from the BGS (Chapter III, Table 16) to the data presented in Table 40 reveals a high level of agreement, specifically the importance of areas such as financial management of health care organizations, general business skills, and administration/management theory related to the health care system.

The Task Force and practitioner panel met in joint session following the nominal group process activity to discuss the knowledge and skill areas and descriptions of positions, functions, and responsibilities of baccalaureate health administration graduates. The prioritized list of knowledge and skills developed in the morning session, the tabulated results of the knowledge and skill areas section of the survey of baccalaureate graduates were guidelines for deliberation. Employment settings and job markets were identified and the relationship between academic preparation and employment was discussed. The merits of general education requirements and more specialized curricula were reviewed.

Table 40: Practitioner/Employer Panel Rankings of Knowledge and Skill Areas Inherent to Employment in Health Administration Positions

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Greater Importance

	Ranking*
Financial Management	1.2
General Business	1.2
Health Care Organization	1.2
Interpersonal Relations	1.2
General Admn./Org. Mgt. Theory	1.3
Communication	1.5
Personnel Administration	1.5
Governmental Relations/Political Science	1.7
Hospital Administration	1.7
Practicum/Practical Experience	1.7
Applied Admn./Org./Mgt. Theory	1.8
Applied Organizational Psychology/Sociology	1.8
Industrial Relations	2.0
Information Systems/Computer Applications	2.0
Physical Plant, Materials Mgt., Housekeeping Mgt.	2.0
Economics	2.2
Health Law	2.2
Health Planning	2.2
Medical/Nursing Practice	2.2
Public Health Administration	2.2
Non-Governmental Regulations	2.3
Applied Interorganizational Theory	2.5
General Education/Liberal Arts	2.5
Medical Sociology	2.5
Administration of Voluntary Organizations	2.7
Research Methodology	2.7
Epidemiology	2.7

Least Importance

---

*Ranking Scale: Relative to importance; 1 = High, 2 = Moderate, 3 = Low, 4 = None.

Note: See Appendix D for Variable Description.

The following points were identified by both groups as dominant issues to be addressed in development of a model competency based curriculum for baccalaureate health administration programs.

- ideal versus realistic expectations of baccalaureate graduates
- employment versus educational competencies
- expectations of baccalaureate versus master's graduates
- feasibility of developing a curriculum that would meet the expectations expressed by the panel
- knowledge and skills inherent to administration in specific industries (i.e., hospitals, clinics, nursing homes, planning agencies, group practice, associations, etc.)
- knowledge and skills specific to level of employment within different organizational settings and industries
- identification of career pathways within specific industries
- the educational needs of the traditional (18-22 year old) and the non-traditional (25 and older) student
- preparation (education and experience) for career pathways in health administration
- standardization and quality control of baccalaureate health administration programs
- marketing baccalaureate health administration programs

Following the meeting panel members were surveyed by mail and asked to again rank the importance of knowledge and skill areas. They were limited to the ten areas identified at their October meeting. A comparison of the two rankings (Table 41) shows that the top four areas: leadership skills, human resource management, financial management, and communications; changed positions but remained top priorities. The remainder of the areas shifted two or three positions on the list.

Table 41: Practitioner/Employer Panel Rankings of Knowledge and Skill Areas Inherent to Successful Job Performance in Middle-Level Health Administration Positions

MOST IMPORTANT

Leadership Skills	Financial Management
Human Resource Management	Human Resource Management
Communications	Communications
Financial Management	Leadership Skills
Knowledge/Use/Implications of Technology	Marketing
Social/Environmental/Political Determinants of Health	Organization
Organization	Educated Human Being
Marketing	Knowledge/Use/Implications of Technology
Educated Human Being	Social/Environmental/Political Determinants of Health
Management of Physical Assets	Management of Physical Assets

SUMMARY

This exercise provides the Task Force with a strong indication of knowledge and skill areas which representatives from the field of health administration practice identify as important. The BGS data and this information from the practitioner/employer panel is important in assessing the baccalaureate education programs that prepare people for careers in health administration. The positive tone of this meeting between the Task Force and practitioners is encouraging for the process of developing educational models for baccalaureate health administration. Specific issues that need attention were identified and discussed. The results of this meeting will guide and assist in the next stage of the project--development of educational models for baccalaureate programs using a core competency concept.

CHAPTER VI: IMPLICATIONS AND RECOMMENDATIONS

Viewed as an experiment, baccalaureate health administration education has been remarkably successful. In a relatively short period of time, numerous programs, in a variety of institutional settings, have developed, which has enabled many graduates to enter the labor market as health administrators. In addition, baccalaureate programs provide educational opportunities for employees in the health care field, thus enhancing their ability to perform successfully in administrative positions.

The purpose of this chapter is to focus on major issues and trends which have emerged from the study and identify some areas that merit attention and further research. The major implications of this study center on five key issues: curriculum development, programmatic structure, articulation between baccalaureate and graduate level education, academic quality, and future research recommendations.

Curriculum Development

Health administration is a convergent field of study. In addition to being versed in liberal arts and general education, graduates must have knowledge and skills in management science and practice, and in areas specific to health administration. If programs are to flourish and graduates are to be prepared to function as health administrators, the partnership between health administration competency areas and business knowledge and skills must be strengthened.

The ability to transfer knowledge learned in an academic setting to the work place is central to the preparation of health administrators. The administrative field experience component is integral to the baccalaureate curriculum.

An issue related to curriculum development and identified through this survey involves meeting the learning needs of inexperienced and experienced students. Some of the graduates had many years of work experience prior to entering the baccalaureate programs and some had no work experience. Although this phenomenon is not limited to health administration education, sensitivity to diverse learning needs and research about the issue must be included as a recommendation for further attention.

Programmatic Structure

Baccalaureate programs are eclectic and defy stereotyping *per se*. They are located in institutions ranging from large state universities to small private colleges; however, most programs have developed at colleges and universities serving a regional market. As such, they are at risk of being overly sensitive to regional, in contrast to national, labor market issues. The emergence of strong national standards and the acknowledgement of these standards by professional associations is required.

Programs are located in a variety of academic settings. The indication that academic locus of the program influences the employment patterns of the graduates cannot be explained by these data. Further research into this issue is warranted. A partial explanation for the differences between graduates of programs located in allied health/health profession units and graduates of programs located in other units could be the relative degree of "professional socialization." Faculty of departments located in colleges of allied health/health professions might collectively be more integrated into the mainstream of the health administration industry and this milieu could produce both "socialization" and "allocation" (see Kerckhoff, 1976) effects on students passing through these training programs. For example, two students--one in allied health/health professions and the other in an interdisciplinary program--might differ in the degree and type of professional orientation acquired through interaction with faculty and in the contacts, referrals, and "sponsorship" into the profession received from faculty in those programs. Alternately, these various loci may experience differential recruitment patterns (i.e., different "kinds" of students selecting different programs) which then lead to the spurious association of academic loci with employment retention.

As indicated in the survey of baccalaureate health administration programs, many of the programs are relatively new and have very few faculty. If the curriculum is to have breadth and depth, and if the field experience is to play a major role, a certain mass of faculty resources is required. According to the criteria for full baccalaureate program membership in AUPHA (see Appendix H), the program must have two full-time health administration faculty as a minimum. Many programs utilize the specialized expertise of practicing health administrators as part-time instructors. In most cases, this practice is encouraged and adds to the overall strength of the program; however, a critical mass of full-time health administration faculty is necessary to ensure curriculum cohesiveness, provide student guidance, enhance research productivity, and to serve as a base for university relations.

Baccalaureate - Graduate Articulation

A substantial number of baccalaureate graduates have gone on to graduate study, and the percentage is likely to increase as more of the recent graduates return to graduate school in the future. A need to examine the relationships between baccalaureate and graduate education for health administration is required.

Although the solutions to problems of baccalaureate graduate program articulation will not be easily identified, one suggestion for examination is the development of complementary, as opposed to rival, graduate level programs which would build on the baccalaureate experience. These programs could be designed to enhance the development of a specialized knowledge base (i.e., financial management, information systems, health planning, multi-institutional management, etc.). Another suggestion is to initiate discussions between baccalaureate and master's degree programs on a state or regional basis to begin addressing the issue within geographic areas. The Accreditating Commission on Education for Health Services Administration must be involved in the discussion and should consider accreditation strategies that foster undergraduate articulation and linkage.

Academic Quality

The rapid growth in the number of both baccalaureate programs and graduates clearly indicates an increased need for quality control so that past successes are not erased. The standardization of baccalaureate health administration programs nationally is currently one of the most significant challenges facing the health administration education field. As the leader in the field, AUPHA must assume this challenge. AUPHA has made great strides in this realm, as evidenced by this study, establishing criteria for full membership in the association, providing a forum for discussion of relevant issues, and contributing to the establishment of a network of programs and faculty. However, many baccalaureate programs do not hold membership in AUPHA or participate in the association. AUPHA has traditionally been identified as a graduate program association, and its leadership role within the baccalaureate arena is a relatively recent initiative. While some concerns and issues are mutual between baccalaureate and graduate programs, baccalaureate programs hold membership in AUPHA for a different set of reasons than graduate programs. Baccalaureate program membership is increasing in the association; however, examination of the strategic implications of the number of programs not participating in the association should be a priority of AUPHA.

Future Research Recommendations

- Conduct a longitudinal study of the respondents to the 1981 survey of baccalaureate graduates to gain information over time concerning education and employment patterns.

- Institute bi-annual surveys of baccalaureate graduates to determine initial placement patterns.

- Investigate structure, requirements, and supervision of the field experience component in the curriculum.

- Investigate the integration of liberal arts and general education in health administration education.

- Investigate the role of affiliation with professional societies in relation to career outcomes.

- Encourage faculty research focusing on the role and responsibilities of department heads and supervisors. This will strengthen the knowledge base concerning middle-level management of health care facilities where many baccalaureate health administration graduates are employed.

APPENDIX A

HEALTH ADMINISTRATION PROGRAM SURVEY: COVER LETTER, QUESTIONNAIRE AND SURVEY

AUPHA

ASSOCIATION OF UNIVERSITY PROGRAMS IN HEALTH ADMINISTRATION
1755 MASSACHUSETTS AVENUE/WASHINGTON, D.C. 20036/SUITE 312/(202) 462-4546

OFFICE OF UNDERGRADUATE EDUCATION

ANN W. TOURIGNY, Ph.D.
DIRECTOR

September 8, 1980

Dear Colleague:

The Association of University Programs in Health Administration is a consortium dedicated to fostering excellence in health administration education. The association conducts various research projects, provides consultation and assistance to university programs at the undergraduate and graduate levels, and serves as a national resource for trends in health services administration. AUPHA is supported by a unique partnership of industry, health organizations, foundations, government, and universities.

Currently, AUPHA is studying baccalaureate health administration education. The W.K. Kellogg Foundation has funded a major research project designed to identify baccalaureate placement patterns and the knowledge, skills, and attitudes necessary to develop competencies inherent to health administration positions. A primary goal of the project is to strengthen undergraduate health administration education and aid programs in their development through the information gained by this effort.

We are asking for your help in this venture. As a first step in this study, we need to identify existing baccalaureate programs in health administration education. Please complete the enclosed questionnaire and return it in the pre-paid addressed envelope by October 15, 1980. Your cooperation is vital to studying baccalaureate health administration education and is greatly appreciated.

Sincerely,

Ann W. Tourigny, Ph.D.
Director

AWT/mbn
enclosure

BACCALAUREATE PROGRAM SURVEY

Section I. Do the academic publications of your university/college state that your unit offers a course of study preparing baccalaureate students for careers in health administration? (check all that apply)

☐ Yes: stated in university catalog/bulletin

☐ Yes: stated in unit (school department, program) publications

If *Yes*, please answer questions in Section II beginning on this page.

☐ No: not stated in university catalog or unit publications

If *No*, please answer questions in Section III on the back of this page.

Section II. If you respond YES to Section I.

1. A. Title of Program: ____________________

B. Degrees granted to graduates (BS, BA,AA, etc.) ____________________

C. How many faculty members do you have? (Do not count guest lecturers)

_____ FULL TIME in health administration program only.

_____ FULL TIME in academic unit, participating in health administration.

_____ PART TIME: responsible for specific health administration courses (current term).

D. Are there objectives specific to the health administration program?

Yes ☐ No ☐

E. Is the health administration program:

(1) a general program in administration ____________________.

(2) a specialty program focused on a specific administrative function (accounting, finance, personnel, planning, etc.) ____________________.

(3) a specialty program focused on a setting (hospital, long term care, clinic, etc.) ____________________.

(4) Other, please describe ____________________

____________________.

F. When did you graduate your first students? ____________________.

G. Approximately how many graduates have completed your program? ____________________.

2. A. Are you willing to participate in the AUPHA undergraduate study by:

(1) Providing copies of your objectives and curriculum: Yes ☐ No ☐

(2) Providing names and addresses of graduates? Yes ☐ No ☐

B. Do you want to be on the mailing list for information concerning this study? Yes ☐ No ☐

contd. on back.

C. May we have the following information about the health administration program:
(Please print or type.)

DIRECTOR'S NAME: ______________________________ TITLE: ______________
PROGRAM NAME: ______________________________ DEPT./SCHOOL: ______________
UNIVERSITY: ____
ADDRESS: ____
TELEPHONE NUMBER: ____

Section III. If you responded NO to Section I:

1. A. Although you do not state in your publications that your unit offers a course of study in health administration, is there an identifiable component of your academic unit that focuses on preparing students for careers in health administration?

Yes ☐ No ☐

If yes, briefly identify the structure and objectives of the component: ______________________
____
____
____

B. Are there objectives specific to the health administration component?

Yes ☐ No ☐

C. Does your academic unit offer courses in which the content is primarily health administration?

Yes ☐ How Many? _____ No ☐

D. Can you identify graduates who have entered careers in health administration?

Yes ☐ No ☐

2. A. Are you willing to participate in the AUPHA undergraduate study by:

(1) Providing copies of your objectives and curriculum?

Yes ☐ No ☐

(2) Providing names and addresses of health administration graduates?

Yes ☐ No ☐

B. Do you want to be on the mailing list for information concerning this study?

Yes ☐ No ☐

C. May we have the following information about your program:
(Please print or type.)

Health Administration Contact Person's Name: ______________________________
TITLE: ______________________________ PROGRAM/DEPT: ______________
UNIVERSITY: ______________________________ ADDRESS: ______________
____
TELEPHONE: ____

Thank you

Number of Baccalaureate Programs

Contact persons in each program were asked if the academic publications of their university or college specifically state that their academic unit offers a course of study preparing undergraduate students for careers in health administration. This information is summarized in Table 42.

Table 42: Number of Baccalaureate Programs (December 1980)

Description	Number of Programs
Do not have program or offer courses	24
Offer courses but no program	5
Developing a program	6
Associate degree program	4
Baccalaureate degree program	100
Total	139

Selected Data on Baccalaureate Programs

The one hundred institutions that offer baccalaureate degree programs are described according to status (Table 43), degree type (see Table 44), state location of the institution (Table 45), and specialization options (Table 46).

Table 43: Status of Baccalaureate Programs

Status as of December 1980	Number of Programs
Have a program: no graduates at date	14
Have a program: cannot furnish list of graduates	18
Have a program: can furnish list of graduates	68
Total	100

Table 44: Types of Degrees Offered

Degree Type		Number of Programs
B.S.		68
B.A.		12
Other (e.g., B.B.S., B.B.A., etc.)		20
	Total	100

Table 45: Number of Programs by State

State	Number of Programs	State	Number of Programs
Alabama	3	Nebraska	1
Arizona	2	New Hampshire	1
Arkansas	2	New Jersey	2
California	8	North Carolina	3
Colorado	2	North Dakota	2
Connecticut	1	New York	6
District of Columbia	1	Ohio	3
Florida	3	Oklahoma	2
Georgia	1	Oregon	2
Idaho	1	Pennsylvania	6
Illinois	3	Rhode Island	1
Indiana	2	South Dakota	2
Kansas	1	Tennessee	5
Kentucky	3	Texas	4
Maine	1	Virginia	2
Maryland	2	Vermont	1
Massachusetts	3	Washington	2
Michigan	5	West Virginia	2
Minnesota	1	Wisconsin	1
Missouri	2	(Canada)	(5)

Table 46: Specialization Options

Option	Number of Programs
Long-Term Care	12
Public Health Administration	4
Health Planning	4
Financial Management	4
Medical Records	1
Patient/Community Education	1

APPENDIX B

BACCALAUREATE GRADUATE SURVEY: COVER LETTER, FOLLOW-UP QUERY AND QUESTIONNAIRE

AUPHA

ASSOCIATION OF UNIVERSITY PROGRAMS IN HEALTH ADMINISTRATION
1755 MASSACHUSETTS AVENUE/WASHINGTON, D.C. 20036/SUITE 312/(202) 462-4546

OFFICE OF UNDERGRADUATE EDUCATION

ANN W. TOURIGNY, Ph.D.
DIRECTOR

To: Graduates of Baccalaureate Programs in Health Administration

From: Ann Tourigny, Ph.D.; Director: Office of Undergraduate Education

Date: April 3, 1981

We need your assistance in a research project dealing with health administration education. The major purpose of this project, which is funded by the W.K. Kellogg Foundation, is to strengthen undergraduate health administration education and aid programs in their development through dissemination of the information gained.

We are asking graduates of baccalaureate health administration programs to complete the enclosed survey and return it to AUPHA by April 30. The information requested in this survey will be used to identify job placement patterns, career patterns, and knowledge and skills needed for job performance of baccalaureate graduates. Your cooperation in completing this questionnaire, which takes approximately 15-20 minutes, is vital to the success of the project. Your individual responses will be confidential, and the data will be analyzed and reported in aggregate form.

The Association of University Programs in Health Administration is a consortium dedicated to fostering excellence in health administration education. The Association conducts various research projects, provides consultation and assistance to university programs at the undergraduate and graduate levels, and serves as a national resource for trends in health services administration. AUPHA is supported by a unique partnership of industry, health organizations, foundations, government, and universities.

Thank you for your help.

AUGUST 10, 1981

WE NEED YOUR HELP!

RECENTLY YOU RECEIVED A QUESTIONNAIRE CONCERNING YOUR BACCALAUREATE EDUCATION IN HEALTH SERVICES ADMINISTRATION. WE FEAR THAT YOU MAY HAVE MISPLACED THE FORM OR FORGOTTEN TO FILL IT OUT.

ENCLOSED IS A SECOND COPY OF THE QUESTIONNAIRE. PLEASE TAKE A FEW MINUTES TO RESPOND AS THIS STUDY WILL HAVE A DEFINITE IMPACT ON BACCALAUREATE EDUCATION IN THE HEALTH ADMINISTRATION FIELD.

THANK YOU FOR HELPING.

SINCERELY,

ANN TOURIGNY

AUPHA

Association of University Programs in Health Administration
1755 Massachusetts Avenue, Suite 312, Washington, D.C. 20036
(202) 462-4547

SURVEY OF GRADUATES OF BACCALAUREATE PROGRAMS IN HEALTH ADMINISTRATION

In order to identify career patterns of graduates of baccalaureate programs in health administration, information about your personal characteristics, academic background, and employment situation is being requested by AUPHA's Office of Undergraduate Education. Information and/or reports generated from your responses will be in aggregate form and will not identify you personally.

SECTION I

GENERAL INFORMATION

1. Bachelor's degree in health administration obtained in *(year)*: ____________________
from *(full name of college or university)*: ______________________________
in *(State/Province)*: ______________________________________

2. Age at graduation: ______

3. Sex: ☐ (1) Male ☐ (2) Female

4. Race/ethnic background: *(check only one)*

☐ (1) Black, not Hispanic origin ☐ (2) White, not Hispanic origin ☐ (3) Hispanic
☐ (4) American or Canadian Indian, Alaskan Native ☐ (5) Asian or Pacific Islander
☐ (6) Other

5. Marital Status: *(check only one)*

☐ (1) Married ☐ (2) Never married ☐ (3) Divorced
☐ (4) Widowed ☐ (5) Separated

6. Number of children at home: ______

7. Do you hold any academic degrees other than a bachelor's in health administration?

☐ (1) No ☐ (2) Yes *(If yes, please check appropriate responses and complete information.)*

Year Received

☐ (1) Diploma in Nursing ______________________________ ____________
☐ (2) Associate in *(specify)*: ______________________________ ____________
☐ (3) Baccalaureate in *(specify)*: ______________________________ ____________
☐ (4) Masters in Health Administration: ______________________________ ____________
☐ (5) Masters in *(specify)*: ______________________________ ____________
☐ (6) Doctorate in *(specify)*: ______________________________ ____________
☐ (7) Other *(specify degree & area)*: ______________________________ ____________

8. Did you have any health-related work experience prior to enrollment in the health administration baccalaureate program?

☐ A. YES *(check all that apply)*

1. Was the experience: ☐ (a) Administrative ☐ (b) Clinical ☐ (c) Other
2. Were you: ☐ (a) Paid ☐ (b) Unpaid
3. How long did you work? ______ *(Years)*
4. Did you continue to work in the health field during the degree program?
☐ (a) Yes ☐ (b) No

☐ B. NO

9. After graduation, did you actively *seek* employment in a health-related job or organization? (*i.e.*, send resumes, respond to newspaper advertisements, etc.)

☐ A. YES

How long before you accepted a position?

☐ (1) 0-3 months ☐ (2) 4-6 months ☐ (3) 7-12 months
☐ (4) more than 1 year ☐ (5) could not find employment in health-related job or organization

☐ B. NO

Reason:

☐ (1) Continued education ☐ (2) Sought position in another field
☐ (3) Other *(specify)*: ______________________________

10. After graduation, for how many health-related jobs did you interview in the search for your first position? ______________________________

11. Have you ever worked in a health-related job or organization since receiving your baccalaureate degree in health administration?

☐ (1) *Yes, currently employed* in a health-related job or organization. (PLEASE GO DIRECTLY TO SECTION II — CURRENT EMPLOYMENT — AND COMPLETE THE REMAINDER OF THE SURVEY.)

☐ (2) *Yes, but not currently employed* in a health-related job or organization. (PLEASE ANSWER QUESTIONS 12 and 13 IN THIS SECTION AND THEN GO DIRECTLY TO SECTION III — EMPLOYMENT HISTORY — AND COMPLETE THE REMAINDER OF THE SURVEY.)

☐ (3) *No*, have never been employed in a health-related job or organization since graduation. (PLEASE ANSWER QUESTIONS 12 AND 13 IN THIS SECTION ONLY AND MAIL BACK THE QUESTIONNAIRE.)

12. If you are *not employed* in a *health related* job or organization, are you employed?

☐ (1) YES: what is your current position?

Job Title ______________________________

Type of Business, Industry, etc. ______________________________

☐ (2) NO: are you currently: *(check all that apply)*

☐ (1) looking for work
☐ (2) pursuing further graduate study.
If so, what degree: ______ and in what field: ______________
☐ (3) full-time homemaker/parent
☐ (4) non-paid (volunteer) worker in the health field
☐ (5) other *(specify)*: ______________________________

13. Will you seek employment in a health-related job or organization at a future date?

☐ (1) Yes ☐ (2) No ☐ (3) Do not know

SECTION II

CURRENT HEALTH-RELATED EMPLOYMENT

The questions in this section pertain to your current employment in a health-related job or organization. If you are not currently but have been employed in a health-related job or organization since graduation, please go directly to Section III and complete the remainder of the survey.

1. What is your current position title: ____________________

2. Name and address of organization:

   Name of Organization ____________________

   Address ____________________

   City, State/Province ____________________

3. Specify the type of community in which you are employed: *(check one)*

   ☐ (1) Large city (population 500,000 or more)
   ☐ (2) Suburb of a large city
   ☐ (3) Moderate size city (population 50,000 to 500,000)
   ☐ (4) Suburb of a moderate size city
   ☐ (5) Small city (population 2,500 to 10,000)
   ☐ (6) Town (population 2,500 to 10,000)
   ☐ (7) Small town (population less than 2,500)
   ☐ (8) Rural/unincorporated area

4. Primary ownership or sponsorship of your organization:

   ☐ A. Government, non-federal

   ☐ (1) State/Provincial ☐ (2) County ☐ (3) City ☐ (4) City-County
   ☐ (5) Hospital District or Authority ☐ (6) Other *(specify):* ____________________

   ☐ B. Government, federal

   ☐ (1) Military ☐ (2) Veterans Administration
   ☐ (3) Public Health Service ☐ (4) Other *(specify):* ____________________

   ☐ C. Not-for-profit, nongovernmental

   ☐ (1) Church-operated ☐ (2) Other *(specify):* ____________________

   ☐ D. For-profit, investor-owned

   ☐ E. Other *(specify):* ____________________

5. Indicate from the following list the type of organization in which you are currently employed: *(check all that apply)*

   ☐ (1) Association or Foundation (*i.e.*, AMA, Heart Fund, Mental Health, etc.)
   ☐ (2) Consulting firm
   ☐ (3) Educational organization
   ☐ (4) Group practice, fee-for-service
   ☐ (5) Health department
   ☐ (6) Health Maintenance Organization, pre-paid
   ☐ (7) Hospital: *(specify type: e.g., V.A., military, general acute care, specialty, osteopathic, etc.):* ____________________

☐ (8) Insurance carrier
☐ (9) Long-term care facility (*specify type: e.g., nursing home, hospice, mental health, etc.*): ______
☐ (10) Management services firm (*e.g., contract hospital*)
☐ (11) Manufacturing/Distributor (*e.g., sales*)
☐ (12) Neighborhood Health Center
☐ (13) Planning agency (*specify*): ______
☐ (14) Professional Standards Review Organization
☐ (15) Regulatory agency (*specify*): ______
☐ (16) Research organization
☐ (17) Specialty agency or clinic (*specify: e.g., Home Care Agency, Community Mental Health Center, Family Planning Agency, Counseling Service, etc.*): ______
☐ (18) Other (*specify*): ______

6. If you are employed in a facility with in-patient services, how many beds does this facility have? ______

7. From the following list, indicate the primary and secondary areas of responsibility associated with your current employment: *(check one in each column)*

Primary *(check one)*	**Secondary** *(check one)*	**Areas of Responsibility**
☐	☐	(1) Accounting
☐	☐	(2) Financial management
☐	☐	(3) Fundraising/public relations
☐	☐	(4) General administration
☐	☐	(5) Health promotion & disease prevention
☐	☐	(6) Information systems
☐	☐	(7) Institutional or organizational planning
☐	☐	(8) Interagency liaison functions
☐	☐	(9) Marketing
☐	☐	(10) Materials management
☐	☐	(11) Operations research or systems engineering
☐	☐	(12) Personnel management
☐	☐	(13) Quality assurance
☐	☐	(14) Provide direct clinical service *(i.e., nursing, counseling, etc.)*
☐	☐	(15) Education
☐	☐	(16) Physical plant management
☐	☐	(17) Regulation/compliance
☐	☐	(18) Evaluation of program service
☐	☐	(19) Environmental services
☐	☐	(20) Sales
☐	☐	(21) Other (*specify*): ______

8. The above questions asked for information about your areas of responsibility. Please indicate below what specific activities/tasks you spend the majority of your time doing in your work situation.

(a) ______
(b) ______

9. Would you describe your current position as: *(check the most appropriate response)*

☐ (1) Lower level management/administration
☐ (2) Middle level management/administration
☐ (3) Upper level management/administration

☐ (4) Clinical
☐ (5) Not management/administration
☐ (6) Other *(specify)*: ______________________________

10. In what range does your present annual full-time salary fall? *(check one)*

☐ (1) Less than $10,000
☐ (2) $10,000 — 11,999
☐ (3) $12,000 — 14,999
☐ (4) $15,000 — 17,999
☐ (5) $18,000 — 20,999
☐ (6) $21,000 — 24,999
☐ (7) $25,000 — 29,999
☐ (8) $30,000 — 34,999
☐ (9) $35,000 — or more

SECTION III

EMPLOYMENT HISTORY

In order to identify career patterns, the following information is requested from both graduates who *are currently* and/or *have been employed* in a health-related job or organization.

1. Beginning with your first job, please list all jobs you have held since graduation from your baccalaureate program in health administration. Include different positions in the same organization, both health-related and non-health related jobs. *(Do not include your present position.)*

POSITION TITLE	TYPE OF ORGAN. INSTIT./ASSOC.	STATE/ PROVINCE	YEARS	FULL TIME	PART TIME
________	________	________	________	☐	☐
________	________	________	________	☐	☐
________	________	________	________	☐	☐
________	________	________	________	☐	☐
________	________	________	________	☐	☐

2. In relation to your first position in a health-related job/organization after graduation, did you:

☐ (1) Obtain your first job as a result of contacts made during internship/practicum/field experience?
☐ (2) Continue working in the same organization: *(check one)*
  ☐ (a) in the same job you held prior to graduation? or
  ☐ (b) in a different job?
☐ (3) Obtain your job via other means?

SECTION IV

KNOWLEDGE AND SKILL AREAS

The questions in this section pertain to the knowledge and skills you need to function successfully in a health-related job or organization. For the purpose of this survey, "knowledge and skills" are defined as information learned from formal education, training, or experience and the application of this knowledge to job-related activities. If you are not currently employed, but have worked in a health related job or organization since graduation, please respond according to the knowledge and skills needed for that job. Please be as specific as possible.

1. Thinking back to your baccalaureate studies (general education, liberal arts, health administration, etc.), what knowledge and skills:

A. Were most beneficial:
(1) ______________________________
(2) ______________________________
(3) ______________________________

B. Were of least value:
(1) ______________________________
(2) ______________________________
(3) ______________________________

C. Should have been covered in greater depth:
(1) ______________________________
(2) ______________________________
(3) ______________________________

D. Should have been included but were not:
(1) ______________________________
(2) ______________________________
(3) ______________________________

2. What are the most important knowledge and skills you have acquired on the job:

A.) ______________________________
B.) ______________________________

3. Are there any comments you care to make concerning the ways in which baccalaureate health administration programs can improve the relevance and quality of their curricula?

____

____

____

____

____

____

____

____

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE
PLEASE RETURN IT TO AUPHA IN THE ATTACHED PREPAID ENVELOPE.

APPENDIX C

SURVEY OF GRADUATES OF BACCALAUREATE PROGRAMS IN HEALTH ADMINISTRATION

CROSS-TABULATIONS BY:

YEAR OF GRADUATION (Tables 47-51)
AGE AT GRADUATION (Tables 52-58)
SEX (Tables 59-62)
RACE (Tables 63-66)
AUPHA MEMBERSHIP (Table 67)

Table 47: Baccalaureate Health Administration Graduates: Age at Graduation by Year of Graduation

AGE	Year of Graduation All Respondents (n=1170) #	%	1980-81 (n=301) #	%	1979 (n=279) #	%	1978 (n=190) #	%	1977 (n=135) #	%	1976 (n=88) #	%	1975 (n=60) #	%	1970-74 (n=110) #	%
20	13	1	2	-	-	-	3	1	-	-	2	1	3	5	3	3
21	296	25	52	17	65	24	41	22	44	33	23	27	26	44	45	41
22	319	27	86	29	75	27	53	28	34	26	32	37	12	20	27	25
23	88	8	25	8	17	7	13	7	16	12	7	8	2	4	8	8
24	45	4	14	5	15	5	8	4	2	1	2	1	2	4	2	-
25-29	152	13	31	11	46	17	22	12	18	14	10	12	7	11	16	15
30-34	77	7	28	9	18	7	16	9	8	6	3	4	2	4	2	2
35-39	62	5	23	8	13	4	18	10	2	1	4	5	1	1	1	-
40-44	44	4	15	5	9	3	7	3	7	6	1	-	3	5	2	2
45-49	37	3	14	4	13	4	2	1	1	-	4	5	1	1	2	2
50+	32	3	11	4	8	2	7	3	3	1	-	-	1	1	2	2

Table 48: Selected Characteristics of Baccalaureate Health Administration Graduates by Year of Graduation

	Year of Graduation															
	All Respondents (n=1170)		1980-81 (n=301)		1979 (n=279)		1978 (n=190)		1977 (n=135)		1976 (n=88)		1975 (n=60)		1970-74 (n=110)	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Sex:																
Male	567	49	107	35	136	49	86	45	81	60	55	62	32	53	66	60
Female	601	51	193	65	142	51	104	55	54	40	33	38	28	47	44	40
Sought Position in Health Field:																
Yes	855	73	206	68	210	75	129	68	109	81	66	75	47	78	88	80
Time in Job Market:																
0-3 months	437	38	98	32	98	36	62	33	69	51	37	41	23	39	50	45
4-6 months	127	11	23	8	38	13	25	14	17	13	8	9	3	5	13	12
7-12 months	87	7	14	5	24	9	21	11	9	7	6	7	5	8	8	7
1+ year	32	3	1	-	6	3	7	4	2	1	5	6	6	10	5	5
Could Not Find Employment in Health Field	167	14	67	23	42	14	14	6	12	9	10	12	10	16	12	11
Did Not Seek Position in Health	308	26	95	32	69	25	61	32	26	19	22	25	13	22	22	20
Continue Education	104	9	29	10	26	10	16	9	9	7	6	7	7	11	11	10
Position in Other Field	33	2	8	3	7	2	8	5	2	1	4	1	2	4	2	2
Other	171	15	58	19	36	13	37	18	15	11	12	14	4	7	9	8
Employed in Health Field Position Since Graduation:																
Yes, Currently	780	67	199	66	172	62	139	73	93	69	62	70	38	63	72	66
Have Been But Not Currently	148	12	13	5	38	14	23	12	22	16	13	15	10	17	28	25
Never	242	20	89	29	69	24	28	15	20	15	13	15	12	20	10	9

Table 49: Position Description of Respondents Currently Employed in Health Field by Year of Graduation

	All Respondents (n=780)		1980-81 (n=199)		1979 (n=172)		1978 (n=139)		1977 (n=93)		1976 (n=62)		1975 (n=38)		1970-74 (n=72)	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Position/Title:																
CEO	96	12	24	12	16	10	14	10	13	14	9	15	4	11	15	22
Assist./Assoc. Admin.	70	9	17	8	7	4	10	7	7	8	13	20	3	8	13	8
Admin. Assist./Clerk/Res.	57	7	18	9	8	5	17	12	5	5	7	11	1	2	1	1
Dept./Unit Director/Superv.	231	30	60	31	55	32	41	30	28	30	17	29	14	38	16	22
Clinical Staff	90	12	30	15	27	16	14	10	7	8	3	4	3	7	5	7
Support Staff	90	12	21	11	21	13	15	-	15	16	5	-	4	11	6	-
Research Staff	42	5	13	7	14	9	9	7	1	1	3	4	1	2	1	1
Health Planner	36	5	5	2	9	6	9	-	4	3	2	-	2	-	5	-
Sales/Consulting	28	4	5	2	4	1	3	1	7	8	-	-	2	6	6	8
Other	32	4	5	2	7	3	6	3	6	7	-	-	1	2	2	3
Salary:																
Less than $10K	40	5	18	10	10	6	7	5	3	3	2	3	-	-	-	-
$10-11,999	39	5	16	9	16	10	2	1	2	2	3	4	-	-	-	-
$12-14,999	131	17	45	24	35	21	27	20	14	15	1	1	9	25	-	-
$15-17,999	164	21	47	25	45	28	35	26	16	18	14	23	2	6	5	8
$18-20,999	123	16	33	17	29	18	22	16	15	17	8	13	9	25	7	10
$21-24,999	122	16	18	10	17	10	29	22	21	23	12	20	8	21	17	26
$25-29,999	58	7	4	1	4	2	8	6	11	13	14	23	3	7	14	20
$30-34,999	32	4	3	1	3	1	2	1	6	7	6	10	1	2	11	16
35K+	39	5	7	3	6	4	3	1	2	2	2	3	5	14	14	20

Table 50: Organizational Focus of Respondents Currently Employed in Health Field by Year of Graduation

	Year of Graduation															
	All Respondents (n=780)		1980-81 (n=199)		1979 (n=172)		1978 (n=139)		1977 (n=93)		1976 (n=62)		1975 (n=38)		1970-74 (n=72)	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Type of Organization*																
Hospital	372	48	109	55	79	46	66	47	45	48	37	60	12	32	22	30
LTC Facility	105	13	30	15	16	9	18	13	20	21	7	11	3	7	11	15
Association/Foundation	37	5	12	6	9	6	3	1	4	3	1	1	4	11	4	5
Consulting Firm	33	4	3	1	10	6	5	3	6	7	2	3	2	5	5	7
Educational Organization	52	7	14	7	15	8	7	5	5	3	7	11	2	5	2	3
Group Practice	40	5	13	6	11	6	6	4	1	1	5	8	1	2	3	4
Health Department	37	5	5	3	12	7	7	5	6	7	1	1	1	2	5	7
HMO	14	3	1	-	1	1	7	5	1	1	1	1	1	2	2	3
Insurance Carrier	21	3	6	3	6	3	1	1	3	3	1	1	1	2	3	4
Management Services Firm	30	4	7	4	9	6	4	3	2	2	3	5	1	2	3	4
Manufacturer/Distribution	18	2	6	3	6	3	2	2	-	-	-	-	-	-	1	1
Neighborhood Health Center	9	1	2	1	1	1	1	1	-	-	-	-	2	5	3	4
Planning Agency	41	5	5	3	11	6	10	7	4	3	2	3	-	-	6	1
PSRO	5	-	1	-	2	1	1	1	-	-	-	-	-	-	1	1
Regulatory Agency	12	1	2	1	3	2	5	3	-	-	1	1	-	-	1	1
Research Organization	16	2	5	2	4	2	2	2	2	2	1	1	1	2	1	1
Specialty Org./Clinic	41	5	9	4	6	3	11	8	1	1	4	6	2	6	5	7
Other	49	6	8	4	14	8	4	3	8	9	4	6	3	7	8	11

*Maximum of three choices for each respondent.

Table 51: Knowledge and Skill Areas Identified by Respondents Employed in the Health Field by Year of Graduation

(Reported as percentage of Respondents within year of graduation. Percentages do not total to 100% due to multiple responses.)

	Year of Graduation							
	All Respondents (n=928) %	1980-81 (n=212) %	1979 (n=210) %	1978 (n=162) %	1977 (n=115) %	1976 (n=75) %	1975 (n=48) %	1970-74 (n=100) %
Most Beneficial								
Applied Admin./Org./Mgt.	25	28	25	21	24	31	27	25
General Business	25	21	25	20	33	44	27	23
Personnel Administration	20	25	20	18	16	11	6	3
Gen. Admin./Org./Mgt. Theory	17	18	16	19	18	16	23	13
Financial Management	16	20	19	19	11	8	6	10
Practicum	16	11	20	23	18	15	6	20
General Education/Liberal Arts	16	19	16	13	15	12	27	13
Communications	14	12	13	12	16	13	14	15
Health Planning	13	9	14	10	15	16	14	19
Quant./Statistics	10	11	6	10	9	9	21	11
Health Care Organization	9	7	9	8	12	7	6	13
Health Law	6	13	5	3	3	5	6	7
Med./Nursing Practice	5	4	5	8	3	4	4	3
Economics	5	6	2	5	6	11	6	6
Applied Org. Psych./Soc.	5	7	5	4	3	4	6	6
Interpersonal Skills	4	6	4	-	4	4	2	5
Info. Sys./Computer Applic.	4	5	7	3	3	1	8	1
Research Methodology	4	5	4	4	2	4	4	3
Government Relations	4	6	3	4	2	8	4	2
Industrial Relations	3	3	2	2	5	1	-	2
Hospital Administration	3	2	4	5	3	4	2	6
Epidemiology	2	3	2	-	3	4	4	2
Med. Soc.	2	3	1	-	-	1	4	2
Community Relations	-	1	1	-	-	-	-	1

Table 51: Knowledge and Skill Areas Identified by Respondents Employed in the Health Field by Year of Graduation (cont.)

	Year of Graduation							
	All Respondents (n=928) %	1980-81 (n=212) %	1979 (n=210) %	1978 (n=162) %	1977 (n=115) %	1976 (n=75) %	1975 (n=48) %	1970-74 (n=100) %
Least Beneficial								
General Education/Liberal Arts*	56	52	46	42	73	68	69	65
General Business	8	15	11	5	8	3	-	2
Quant./Statistics	5	6	3	7	5	1	6	2
Health Planning	4	5	3	8	1	4	8	2
Gen. Admin./Org./Mgt. Theory	4	5	4	5	1	5	-	2
Economics	3	4	2	4	3	-	6	2
Epidemiology	3	2	1	-	4	8	-	5
Med./Nurs. Practice	2	2	2	5	2	4	4	-
Health Care Organization	2	2	3	1	1	1	-	-

*The code "general education/liberal arts" includes all knowledge and skill areas not specifically related to health administration and/or management science and practice. Further analysis of all respondents identifies the following sub-categories under least beneficial knowledge and skills: "Liberal Arts"=18%, General Science=17%, Sociology=10%, History=10%, Mathematics=7%, Philosophy=7%, Community/Family Development=6%, English=3%, Psychology=5%, Religion=4%.

able 51: Knowledge and Skill Areas Identified by Respondents Employed in the Health Field by Year of Graduation (cont.)

	Year of Graduation							
	All Respondents (n=928) %	1980-81 (n=212) %	1979 (n=210) %	1978 (n=162) %	1977 (n=115) %	1976 (n=75) %	1975 (n=48) %	1970-74 (n=100) %
eeds Greater Depth								
inancial Management	25	30	24	25	23	24	27	22
eneral Business	18	19	17	17	13	25	14	21
pplied Admin./Org./Mgt.	14	15	6	13	13	17	12	12
ersonnel Administration	11	13	7	13	19	8	6	10
ommunications	11	11	10	12	11	12	10	11
nf. Sys./Computer Applic.	10	9	14	8	10	7	17	5
overnment Relations	9	8	10	8	10	12	2	13
uant./Statistics	8	7	8	9	5	11	14	9
ealth Law	8	9	7	9	9	8	8	2
en. Admin./Org./Mgt. Theory	7	6	6	9	6	5	6	10
ealth Planning	5	4	2	7	4	9	8	9
ealth Care Organization	5	5	5	5	6	7	8	3
ed./Nursing Practice	5	5	5	3	3	7	8	5
conomics	5	3	7	5	6	3	8	3
pplied Org. Psych./Soc.	4	3	2	3	5	4	4	8
racticum	4	4	5	3	7	4	-	5
ospital Administration	3	5	1	2	2	3	-	4
nterpersonal Skills	3	2	3	6	5	3	-	2
esearch Methodology	3	2	3	3	3	1	-	3
eneral Education/Liberal Arts	2	2	-	1	5	1	-	5
ong-Term Care Administration	2	-	-	-	-	-	-	-
ommunity Relations	-	-	-	2	1	3	-	1

Table 51: Knowledge and Skill Areas Identified by Respondents Employed in the Health Field by Year of Graduation (cont.)

	Year of Graduation							
	All Respondents (n=928) %	1980-81 (n=212) %	1979 (n=210) %	1978 (n=162) %	1977 (n=115) %	1976 (n=75) %	1975 (n=48) %	1970-74 (n=100) %
Should Be Included								
Financial Management	14	16	13	12	13	7	19	15
General Business	12	8	10	9	16	13	27	18
Communications	11	12	8	13	13	12	14	11
Personnel Administration	10	8	9	13	8	13	14	11
Info. Sys./Computer Applic.	9	9	7	9	8	12	8	12
Government Relations	7	6	9	5	9	5	8	9
Applied Admin./Org./Mgt.	6	7	2	4	5	1	4	7
Med./Nursing Practice	5	6	4	9	3	4	4	3
Practicum	4	4	5	4	8	7	4	2
Health Law	4	6	3	4	3	7	6	4
Quant./Statistics	4	4	4	4	3	4	-	4
Research Methodology	4	3	3	5	-	5	-	7
Interpersonal Skills	4	5	3	4	6	4	2	4
Health Care Organization	4	4	2	6	4	4	-	2
Community Relations	4	5	4	4	3	4	-	5
Hospital Administration	3	3	4	4	1	1	8	1
Applied Org. Psych./Soc.	3	3	2	4	5	4	-	4
Industrial Relations	3	2	1	2	4	3	2	4
Phy. Plant/Mat. Mgt./Hsk.	2	3	1	2	2	1	-	4
General Education/Liberal Arts	2	3	2	3	-	1	-	2
Non-Government Regulations	2	-	-	-	-	-	-	-
Health Planning	2	2	2	-	2	1	4	3

Table 52: Sex by Age at Graduation

	Age at Graduation					
	24 Years or Less (n=761)		25 Years or More (n=404)		All Respondents (n=1170)	
	#	%	#	%	#	%
Male	351	46	214	53	567	49
Female	409	54	190	47	601	51

Table 53: Employment Status by Age at Graduation

	Age at Graduation					
	24 Years or Less (n=761)		25 Years or More (n=404)		All Respondents (n=1170)	
	#	%	#	%	#	%
Employed in Health Position Since Graduation:						
Yes, Currently	473	62	306	76	780	67
Have Been But Not Currently	112	15	35	8	148	12
Never	175	23	63	16	242	20

Table 54: Position Description of Respondents Currently Employed in Health Field by Age at Graduation

	Age at Graduation					
	24 Years or Less (n=473)		25 Years or More (n=306)		All Respondents (n=780)	
	#	%	#	%	#	%
Position Title:						
CEO	41	9	55	18	96	12
Assist./Assoc. Admin.	42	9	28	9	70	9
Admin. Assistant	39	8	18	6	57	7
Dept./Unit Director/Supervisor	132	28	100	33	232	30
Clinical Staff	33	7	57	19	90	12
Support Staff	75	16	15	5	90	12
Research Staff	35	7	7	2	42	5
Health Planner	29	6	7	2	36	5
Sales/Consulting	23	5	5	2	23	4
Other	24	5	8	3	32	4
Self-Defined Position Level:						
Upper-Level Admin./Mgt.	94	20	81	26	175	23
Middle-Level Admin./Mgt.	161	34	124	41	285	37
Lower-Level Admin./Mgt.	114	24	26	8	146	19
Clinical	27	6	41	13	68	9
Non-Admin./Mgt.	52	11	24	8	66	9
Other	21	4	2	1	23	3

Table 55: Primary Areas of Responsibility of Respondents Currently Employed in the Health Field by Age at Graduation

	Age at Graduation		
	24 Years or Less (n=473) %	25 Years or More (n=306) %	All Respondents (n=780) %
Primary Areas of Responsibility:*			
General Administration	30	40	34
Inst./Org. Planning	22	20	21
Personnel Management	20	24	21
Regulation/Compliance	16	21	18
Evaluation Program Services	18	16	17
Quality Assurance	13	20	16
Financial Management	15	16	15
Clinical Services	10	24	15
Information Systems	14	10	12
Interagency Liaison	11	12	12
Health Promotion and Prevention	8	15	11
Materials Management	10	13	11
Education	7	16	10
Fund Raising/Public Relations	8	7	8
Marketing	10	6	8
Physical Plant Management	8	9	8
Accounting	8	7	6
Environmental Services	6	7	6
Oper. Res./Sys. Eng.	7	2	5
Sales	5	4	4
Other	10	7	9

*Percentages do not equal 100% due to multiple responses.

Table 56: Organizational Focus of Respondents Currently Employed in Health Field by Age at Graduation

	Age at Graduation					
	24 Years or Less (n=473)		25 Years or More (n=306)		All Respondents (n=780)	
	#	%	#	%	#	%
Type of Organization:*						
Hospital	212	45	160	52	372	48
Long-Term Care Facility	62	13	43	14	105	13
Ambulatory Care Facility	61	13	43	14	104	13
Planning/Regulatory Agency	45	10	13	4	58	7
Other Health-Service or Health-Related Organization	198	42	95	31	293	38

*Maximum of three choices for each respondent.

Table 57: Mobility Within and Between Organizations by Respondents Who Have Been Employed in the Health Field Since Graduation by Their Age at Graduation

	Age at Graduation					
	24 Years or Less (n=583)		25 Years or More (n=345)		All Respondents (n=928)	
	#	%	#	%	#	%
Continuously Employed in Health Field:						
In First/Only Position	64	11	56	16	120	13
Held Positions in Different Organizations	121	21	72	21	193	21
Held Different Positions in Same Organization	176	30	124	36	300	32
Held Different Positions in Same Organization and Positions in Different Organizations	36	6	20	7	56	6
Employed in Both Health-Related and Non-Health Positions	147	25	40	12	191	21
Incomplete Data	39	7	29	9	68	7

Table 58: Knowledge and Skill Areas Identified by Respondents Who Have Been Employed in the Health Field by Age at Graduation*

	Age at Graduation		
	24 Years or Less (n=583) %	25 Years or More (n=345) %	All Respondents (n=928) %
Most Beneficial			
Applied Admin./Org./Mgt.	27	23	25
General Business	30	18	25
Personnel Administration	12	25	20
Gen. Admin./Org./Mgt. Theory	17	18	17
Financial Management	13	22	16
Practicum	21	9	16
General Education/Liberal Arts	18	14	16
Communications	16	10	14
Health Planning	18	6	13
Quant./Statistics	12	6	10
Health Care Organization	10	7	9
Health Law	5	9	6
Med./Nursing Practice	5	5	5
Economics	5	6	5
Applied Org. Psych./Soc.	2	6	5
Least Beneficial			
General Education/Liberal Arts**	65	27	56
General Business	5	14	8
Quant./Statistics	3	8	5

*Reported as percentage of respondents within academic locus. Percentages do not total to 100% due to multiple responses.

**The code "general education/liberal arts" includes all knowledge and skill areas not specifically related to health administration and/or management science and practice. Further analysis of all respondents identifies the following sub-categories under least beneficial knowledge and skills: "Liberal Arts"=18%, General Science=17%, Sociology=10%, History=10%, Mathematics=7%, Philosophy=7%, Community/Family Development=6%, English=3%, Psychology=5%, Religion=4%.

Table 58: Knowledge and Skill Areas Identified by Respondents Who Have Been Employed in Health Field by Age at Graduation* (cont.)

	Age at Graduation		
	24 Years or Less (n=583) %	25 Years or More (n=345) %	All Respondents (n=928) %
Need Greater Depth			
Financial Management	24	26	25
General Business	20	15	18
Applied Admin./Org./Mgt.	15	12	14
Personnel Administration	10	13	11
Communication	13	8	11
Info. Sys./Computer Applic.	11	9	10
Government Relations	11	7	9
Quant./Statistics	10	5	8
Health Law	6	10	8
Gen. Admin./Org./Mgt. Theory	7	7	7
Health Planning	6	4	5
Health Care Organization	6	3	5
Med./Nursing Practice	6	3	5
Economics	5	6	5
Should Be Included			
Financial Management	15	12	14
General Business	15	7	12
Communications	11	11	11
Personnel Administration	9	13	10
Info. Sys./Computer Applic.	14	8	9
Government Relations	8	5	7
Applied Admin./Org./Mgt.	5	7	6
Med./Nursing Practice	6	3	5

*Reported as percentage of respondents within academic locus. Percentages do not total to 100% due to multiple responses.

Table 59: Employment Status by Sex

	Sex					
	Males (n=567)		Females (n=601)		All Respondents (n=1170)	
	#	%	#	%	#	%
Employed in Health Position Since Graduation:						
Yes, Currently	392	69	387	65	780	67
Have Been But Not Currently	63	11	85	14	148	12
Never	112	20	128	21	242	20

Table 60: Description of Respondents Currently Employed in Health Field by Sex

	Sex					
	Males (n=392)		Females (n=387)		All Respondents (n=780)	
	#	%	#	%	#	%
Position Title:						
CEO	75	19	21	5	96	12
Assist./Assoc. Admin.	50	13	20	5	70	9
Admin. Assistant	31	8	27	7	57	7
Dept./Unit Director/Supervisor	107	27	125	32	232	30
Clinical Staff	28	7	62	16	90	12
Support Staff	33	8	57	15	90	12
Research Staff	12	3	30	8	42	5
Health Planner	19	5	17	4	36	5
Sales/Consulting	13	3	15	4	28	4
Other	21	5	11	3	32	4
Self-Defined Position Level:						
Upper-Level Admin./Mgt.	128	33	47	12	175	23
Middle-Level Admin./Mgt.	152	39	133	34	285	37
Lower-Level Admin./Mgt.	57	15	89	23	146	19
Clinical	26	7	42	11	68	9
Non-Admin./Mgt.	21	5	45	12	66	9
Other	4	1	19	5	23	3
Salary:						
Less than $10K	11	3	29	7	40	5
$10-11,999	12	3	27	7	39	5
$12-14,999	52	13	79	20	131	17
$15-17,999	76	19	88	23	164	21
$18-20,999	63	16	60	16	123	16
$21-24,999	69	18	53	14	122	16
$25-29,999	42	11	16	4	58	7
$30-34,999	28	7	4	1	32	4
$35K+	30	8	9	2	39	5

Table 61: Organizational Focus of Respondents Currently Employed in Health Field by Sex

	Sex					
	Males (n=392)		Females (n=387)		All Respondents (n=780)	
	#	%	#	%	#	%
Type of Organization:*						
Hospital	197	50	175	45	372	48
Long-Term Care Facility	75	19	30	8	105	13
Ambulatory Care Facility	34	9	69	18	104	13
Planning/Regulatory Agency	34	9	24	6	58	7
Other Health-Service or Health-Related Organization	142	36	151	39	293	38

*Maximum of three choices for each respondent.

124

Table 62: Primary Areas of Responsibility of Respondents Currently Employed in the Health Field by Sex*

	Sex		
	Males (n=392) %	Females (n=387) %	All Respondents (n=780) %
General Administration	44	24	34
Inst./Org. Planning	26	17	21
Personnel Management	28	14	21
Regulation/Compliance	23	13	18
Evaluation Program Services	20	14	17
Quality Assurance	19	13	16
Financial Management	21	10	15
Clinical Services	9	22	15
Information Systems	13	13	12
Interagency Liaison	14	10	12
Health Promotion and Prevention	10	12	11
Materials Management	14	8	11
Education	7	14	10
Fund Raising/Public Relations	9	6	8
Marketing	10	6	8
Physical Plant Management	14	3	8
Accounting	10	6	6
Environmental Services	9	3	6
Oper. Res./Sys. Eng.	6	3	5
Sales	5	4	4
Other	8	10	9

*Percentages do not equal 100% due to multiple responses.

Table 63: Sex by Race*

	Race					
	White (n=1040)		Non-White (n=120)		All Respondents (n=1170)	
	#	%	#	%	#	%
Male	512	49	51	42	567	49
Female	527	51	69	58	601	51

*Ten respondents did not specify their race or ethnic background.

Table 64: Employment Status by Race*

	Race					
	White (n=1040)		Non-White (n=120)		All Respondents (n=1170)	
	#	%	#	%	#	%
Employed in Health Position Since Graduation:						
Yes, Currently	700	67	76	63	780	67
Have Been But Not Currently	137	13	11	9	148	12
Never	203	20	32	27	242	20

*Ten respondents did not specify race or ethnic background.

Table 65: Position Description of Respondents Currently Employed in Health Field by Race

	Race					
	White (n=700)		Non-White (n=76)		All Respondents (n=780)	
	#	%	#	%	#	%
Position Title:						
CEO	84	12	12	16	96	12
Assist./Assoc. Admin.	63	9	7	9	70	9
Admin. Assist.	52	7	5	7	57	7
Dept./Unit Director/Supervisor	205	29	26	34	232	30
Clinical Staff	79	11	11	14	90	12
Support Staff	85	12	3	4	90	12
Research Staff	40	6	2	3	42	5
Health Planner	33	5	3	4	36	5
Sales/Consulting	24	3	4	5	28	4
Other	29	4	3	4	32	4
Self-Defined Position Level:						
Upper-Level Admin./Mgt.	157	22	17	22	175	23
Middle-Level Admin./Mgt.	257	37	25	33	285	37
Lower-Level Admin./Mgt.	127	18	19	25	146	19
Clinical	58	8	10	13	68	9
Non-Admin./Mgt.	61	9	5	7	66	9
Other	23	3	-	-	23	3
Salary						
Less than $10K	36	5	4	5	40	5
$10-11,999	33	5	6	8	39	5
$12-14,999	116	17	14	18	131	17
$15-17,999	151	22	13	17	164	21
$18-20,999	112	16	11	14	123	16
$21-24,999	110	16	11	14	122	16
$25-29,999	48	7	10	13	58	7
$30-34,999	30	4	2	3	32	4
$35K+	36	5	3	4	39	5

Table 66: Organizational Focus of Respondents Currently Employed in Health Field by Race

	Race					
	White (n=700)		Non-White (n=76)		All Respondents (n=780)	
	#	%	#	%	#	%
Type of Organization:*						
Hospital	329	47	40	53	372	48
Long-Term Care Facility	98	14	7	9	105	13
Ambulatory Care Facility	85	12	19	25	104	13
Planning/Regulatory Agency	57	7	6	8	58	7
Other Health-Service or Health-Related Organization	259	37	34	45	293	38

*Maximum of three choices for each respondent.

Table 67: Comparison of Respondents from AUPHA Member and Non-Member Programs

	Respondents From Member Programs (n=904)		Respondents From Non-Member Programs (n=266)		All Respondents (n=1170)	
	#	%	#	%	#	%
Health-Related Work Experience Prior to Entering Baccalaureate Program						
Yes	418	46	165	63	583	49
No	486	54	101	37	587	51
Sought Position in Health Field After Graduation						
Yes	681	75	172	65	853	73
No	223	25	94	35	317	27
Currently Employed in the Health Field	603	67	177	67	780	67
Have Been But Not Currently Employed in Health Field	126	14	22	8	148	12
Never Employed in Health Field	175	19	67	25	242	20

APPENDIX D

KNOWLEDGE AND SKILL AREAS DESCRIPTIONS

Knowledge and Skill Areas Descriptions

Administration of Voluntary Organizations - the role, organization, and functions of community voluntary agencies or organizations.

Applied Administrative & Organization Theory - application of administrative theory to health service organizations.

Applied Interorganizational Theory - knowledge and application of interorganizational theory to health service organizations and systems.

Applied Organizational Psychology/Sociology - psychological or sociological factors affecting organizations and employees within the organization.

Communications - skills and processes involved in transmitting ideas: oral and written, small group/large group, grantsmanship, and proposal writing.

Community Relations - skills, techniques, and process of developing agency-community relations including public relations, and health care marketing and education.

Economics - basic theories of micro- or macro-economics including health economics.

Epidemiology - causation, distribution and control of disease populations including environmental health.

Financial Management - planning, implementation and control of accounting, budgeting and investment processes in health care organizations.

General Administrative & Organization Theory - general theories of management, leadership, organization design and structure.

General Business - skills in accounting, marketing, finance, or production (not health specific).

General Education/Liberal Arts - areas of liberal learning including College/University requirements other than those of the program. This category was further analyzed according to specific disciplines (i.e., History, Science, Religion, etc.).

Governmental Relations/Political Science - federal, state and local governmental roles in health policy, delivery, financing and regulation.

Health Care Organization - the basic financial, organization and delivery mechanism for health care.

Health Law - legal concepts and regulation in the health area.

Health Planning - processes, techniques and issues in planning community health systems/institutions.

Hospital Administration - the role, organization and function of hospitals.

Medical/Nursing Practice - medical concepts, terminology and treatment processes; roles of health personnel.

Industrial Relations - concepts, implications and laws pertaining to labor organizations.

Information Systems/Computer Applications - design and uses of information systems in health management and planning.

Interpersonal Skills - human behavior in the organization environment.

Medical Sociology - analysis of the social and cultural factors affecting health, illness and medical practice.

Non-Governmental Regulations - the role and function of non-governmental regulatory units (e.g., accreditation, licensure).

Personnel Administration - wage and salary administration, performance evaluation, staffing including personnel administration in health organizations.

Physical Plant, Materials Management, Houskeeping Management - processes and techniques in managing physical aspects of health facilities.

Practicum/Practical Experience - exposure to health care organizations and administrative practice through field experience.

Public Health Administration - the role, organization and function of public health agencies.

Quantitative Methods/Applied Statistics - role and use of statistics in health care settings.

Research Methodology - application of research methodology (problem definition, procedure, data collection and analysis, etc.) to health service organizations including evaluation research.

On-the-Job Knowledge and Skill Areas: Descriptions

Communication skills - oral and written (i.e., express ideas clearly, public speaking preparation of reports, business letter writing, etc.).

Decision-making skills - problem-solving techniques applied to organization policy development and to employee relations.

Develop expertise in specific program areas - develop the skills or acquire the knowledge necessary for provision of non-clinical direct services (i.e., education, counseling, etc.).

Financial management skills - ability to perform tasks related to fiscal management of health organizations (i.e., cost accounting, reimbursement, third-party payment, etc.).

Improvement/application of management/administration skills - ability to apply knowledge learned in educational experience to work situation.

Improvement of clinical skills - direct patient care (i.e., nursing, medical technology, radiology, etc.).

Individual development - skills/knowledge of a personal nature (i.e., value clarification, self-understanding, maturity, trust own judgment, etc.).

Information systems - develop the knowledge/skills necessary for use/management of data including computer applications.

Interorganizational relations/dynamics - knowledge/understanding of how organizations interact (i.e., coordination of interagency projects, positioning of various organizations/agencies within the "system", etc.).

Interpersonal skills - develop the knowledge of human relations and the ability to deal successfully with people at various levels within the organization; individually and in small groups (i.e., administrators/physicians, clients/patients, fellow employees, committees, boards, etc.).

Legal aspects of health care - knowledge/understanding of health care law (excluding specific governmental regulations).

Management/supervision of personnel - develop the knowledge/skills necessary for effective supervision of employees (i.e., staff recruitment/development, evaluation, employee management conflict, scheduling and assignment of tasks, etc.).

Organizational relations/dynamics - knowledge/understanding of how organizations function (i.e., interdepartmental relations, organization "politics", informal and formal power structure, etc.).

Planning skills - the ability to develop organization or community plans for health care delivery.

Public relations skills - the ability to deal effectively with the community (i.e., marketing of health care services, improve/strengthen the "image" of the facility, etc.).

Research skills - ability to conduct research including program evaluation (i.e., methodology design, data collection, analysis of data, etc.).

Understanding of the influence of regulatory units - develop the knowledge/skills necessary for interaction with regulatory units (i.e., government, accreditation, unions, etc.).

APPENDIX E

VARIABLE DESCRIPTION: CONCEPTUAL MODEL

Variable Descriptions

Mnemonic	Variable Description
ADMIN	Previous administration work experience? (1 = yes); see PREWORK
AGE	R's age in years; computed from age at graduation, (AGEGRAD), years of work experience (YRSEXP); and year baccalaureate degree was obtained (from BGS); AGE = (81 - year of degree) + AGEGRAD
AGEGRAD	R's age at baccalaureate graduation; in years
ASSTAD	Vice president, assistant or associate administrator (1 = yes); see JOBTITLE
BUSADM	Academic locus: school of business administration; obtained from existing AUPHA records on R's baccalaureate university and indicates the administrative location of the health administration degree program. These included: (1) allied health, health science, health professions; (2) business administration or management; (3) interdisciplinary; (4) community studies, community education, community service, human development, technical careers; (5) medicine; (6) public health; (7) nursing; (8) arts and science. After inspection of frequencies and preliminary analysis, these eight categories were collapsed into four dummies each coded "1 - yes;" "0 = otherwise," with the reference category being allied health/health professions (no.1 above): business administration (BUSADM), interdisciplinary (INTDIS), community service (COMSER) and other (OTHER)
CEO	Chief executive officer (1 = yes); see JOBTITLE
CLINIC	Previous clinical work experience (1 = yes); see PREWORK
COMSER	Academic locus: Community Service (1 = yes); see BUSADM
DEPTDIR	Department or unit director/supervisor as job title (1 = yes); see JOBTITLE

Mnemonic	Variable Description
EMPLOY	Current health employment status; R's were asked "Have you ever worked in a health-related job or organization since receiving your baccalaureate degree in health administration?" and were given three possible responses: (1) Yes, currently employed in a health-related job or organization; (2) Yes, but not currently...; (3) No, have never...
ENC	East North Central region (1 = yes); see REGION
ESC	East South Central region (1 = yes); see REGION
GOVTFED	Primary ownership/sponsorship of employing health organization: federal government (1 = yes); see ORGSPON
HOSPITAL	Employing health organization type: hospital-all types (1 = yes); see ORGTYPE
HLTHPL	Health planner as job title (1 = yes); see JOBTITLE
INTDIS	Academic locus: interdisciplinary (1 = yes); see BUSADM
JOBLEVEL	Current position in employing health organization: R's were asked "Would you describe your current position as:" and were given choices of: (1) lower-level management/administration; (2) middle-level...; (3) upper-level...; (4) clinical; (5) not management/administration; (6) other (specify). After examining the frequency distribution, a series of one-way ANOVAs were used to assess the information provided by distinguishing each category on salary. These results suggested that using only two dummies would yield reasonably similar findings: upper-level (UPPER) and middle-level (MIDDLE) vs. all others combined.
JOBTITLE	R's were asked open-endedly: "What is your current position title" and these were coded into 49 unique health job titles. These detailed titles were collapsed into 8 conceptually distinct and one miscellaneous categories: (1) Chief Executive Officers; (2) Assoc./Asst. Administrator; (3) Administrative Asst./Clerk; (4) Department or Unit Director/Supervisor; (5) Clinical Staff; (6) Support Staff (e.g., personnel, financial, medical records); (7) Research Staff; (8) Health Planning; (9) other jobs. Using the frequency distribution and one-way ANOVAs for SALARY, five dummies were

Mnemonic	Variable Description
JOBTITLE (cont.)	created to capture the meaningful variation on JOBTITLE; all scored 1 = yes: Chief Executive Officer (CEO); Asst./Assoc. Director (ASSTAD); Department-Unit Director (ASSTAD); Health Planner (HLTHPL); Other jobs (OTHJOB)
KIDHOME	Children at home? (1 = yes); originally collected as number of children at home, the frequency distribution showed an extreme positive skew such that most of the important differences seemed to be between those with and without children and so a dichotomy was constructed.
LTCFAC	Employing Health Organization Type: Long-Term Care Facility (1 = yes); see ORGTYPE
MA	Second Academic Degree? Other Master's Degree (1 = yes); see SECDEG
MARRIED	R's Marital Status (1 = married); originally comprised of five standard categories, preliminary analysis indicated that a married-nonmarried dummy variable was most meaningful
MHA	Second Academic Degree? Graduate degree in health administration (1 = yes); see SECDEG
MIDDLE	Current position in employing health organization: Middle-Level Administration (1 = yes); see JOBTITLE
MOBILE	Geographic mobility across U.S. Census regions between Baccalaureate graduation and 1981 (1 = yes); if R changed regions, based on current address and baccalaureate alma mater, this dummy reflected such a movement; see REGION
MTN	Mountain region, see REGION
NURSE	Second academic degree? Nursing degree (1 = yes); see SECDEG
ORGSPON	Primary ownership or sponsorship of employing health organization; five categories were permitted (1) non-federal government; (2) federal government; (3) not-for-profit/non-governmental; (4) profit-making, investor-owned; (5) other; for SALARY analysis, one-way ANOVAs indicated that two dummies would suffice, both scored 1 = yes; private-profitmaking (PVTPROF) and federal government (GOVTFED)

Mnemonic	Variable Description
ORGTYPE	Primary type of employing health organization; R was given 18 categories from which s/he was allowed to "check all that apply" to indicate the principal task of the employed health organization from which the first categories were collapsed into five groups; (1) Hospital; (2) LTC facility; (3) Ambulatory Care facility; (4) Planning-Regulatory agency; (5) Other. In the analysis of SALARY, two dummies, scored 1 = yes, were used based upon one-way ANOVAs; LTC facility (LTCFAC) and Hospital (HOSPITAL)
OTHER	Academic locus: other (1 = yes); see BUSADM
OTHJOB	Other job (1 = yes); see JOBTITLE
PAC	Pacific region (1 = yes); see REGION
PREWORK	Previous health-related work experience (1 = yes); R was asked "Did you have any health-related work experience prior to enrollment in the health administration baccalaureate program?"; for the type of experience, three categories were provided: (1) administrative; (2) clinical; and (3) other; two dummies were used to represent these three categories: administrative (ADMIN) and clinical (CLINIC)
PVTPROF	Primary ownership or sponsorship of employing health organization: private profit-making (1 = yes); see ORGSPON
RACE	R's ethnicity; scored 1 = white; 0 = otherwise
REGION	Region of the U.S.: Baccalaureate university. The U.S. Census categories were utilized: (1) New England (NE) = ME, VT, NH, MA, CT, RI; Middle Atlantic (MA) = NY, NJ, PA; East North Central (ENC) = WI, IL, IN, MI, IA, MO, ND, SD, NB, KS; South Atlantic (SA) = DE, MD, WV, VA, NC, SC, GA, FL; East South Central (ESC) = KY, TN, Al, MS; West South Central (WSC) = AR, OK, LA, TX; Mountain (MTN) = MT, ID, WY, NV, UT, CO, AZ, NM; Pacific (PAC) = WA, OR, CA, AK, HI; Canada (CAN); Canada was dropped from the regression analysis due to a lack of variation.
SA	South Atlantic region (1 = yes); see REGION
SALARY	R's current full-time salary; originally composed of 9 categories, SALARY was recoded into dollars using estimated midpoints of categories

Mnemonic	Variable Description
SECDEG	Second academic degree (1 = yes); R was asked if s/he held any additional academic degrees; if so, seven categories of degrees were to be checked if appropriate; of these, three dummies, scored 1 = yes, were constructed in comparison to not having a second degree and against all others; non-health administration master's degree (MA); master's in health administration (MHA); nursing degree (NURSE)
SEEKHJ	Did R seek a health job post-graduation? (1 = yes); actual item was: "After graduation did you actively seek employment in a health-related job or organization?"
SEX	R's gender (1 = male)
UPPER	Current position in employing health organization: upper-level administration (1 = yes); see JOBLEVEL
WNC	West North Central region (1 = yes); see REGION
YRSEXP	R's years of work experience in the health field; constructed from year baccalaureate obtained (see Appendix B) so that YRSEXP = 81' - year degree obtained; this operationalization is less than ideal but approximates that used by sociologists and economists (see Suter and Miller, 1973, for example).

NOTE: R = BGS respondent

APPENDIX F

PRACTITIONER/EMPLOYER PANEL

COVER LETTER AND QUESTIONNAIRE

AUPHA

ASSOCIATION OF UNIVERSITY PROGRAMS IN HEALTH ADMINISTRATION
1755 MASSACHUSETTS AVENUE/WASHINGTON, D.C. 20036/SUITE 312/(202) 462-4546

OFFICE OF UNDERGRADUATE EDUCATION

ANN W. TOURIGNY, Ph.D.
DIRECTOR

To: Practitioner/Employer Panel

From: Ann W. Tourigny

Date: September 28, 1981

Re: Task Force for Undergraduate Education/Panel Meeting
October 16-17, 1981
Vernon Manor Hotel
400 Oak Street
Cincinnati, Ohio

The purpose of our meeting in Cincinnati is to exchange information regarding the preparation of baccalaureate health administration graduates and their positions in the field of practice. AUPHA in cooperation with a wide range of baccalaureate programs has undertaken a project to develop a competency based model curriculum for undergraduate health administration education. The involvement of practitioners and employers of baccalaureate graduates will assist the Task Force on Undergraduate Education in assessing the data which has been collected in a survey of baccalaureate graduates.

The following items are enclosed to provide you with some background information prior to our meeting.

ITEM 1: Abstract of project
2: Copy of grant
3: Program Notes (p. 33) - competency assessment article
4: Questionnaire sent to baccalaureate graduates
5: Partial summary of survey data
6: Meeting agenda
7: Expense voucher
8: Knowledge area questionnaire (please bring completed)

The major purpose of the research project is the competency based model curriculum. An essential element of the development process for this model curriculum is deliberation of knowledge and skill areas. Regardless of individual differences in graduates, the overriding question is: "What knowledge and skills do you expect a baccalaureate graduate to possess in order to function in the field of health administration?" The role of the practitioner/employer panel in the project is to provide insight from various fields of practice regarding knowledge and skills areas required for successful job performance.

At the meeting, you will be asked to address the following points:

Identify and describe position(s) in your organization that could be held by a baccalaureate health administration graduate.

- position level
- functions
- areas of responsibility
- specific tasks/skills

Identify potential employment markets (other than your organization) for baccalaureate health administration graduates.

- organizational focus
- position levels

As a focal point for discussion of knowledge areas, we are asking you to complete the enclosed questionnaire and bring it to the meeting.

I am looking forward to seeing you in Cincinnati. Should there be any questions, please contact me.

Knowledge Areas

Please indicate the importance of each knowledge area listed below, in relation to a baccalaureate graduate's preparation for employment in the health administration field.

HIGH 1	MODERATE 2	LOW 3	NONE 4	
				General Administrative/Organization/Management Theory. General theories of management, leadership, organization design and structure.
				Applied Administrative/Organization/Management Theory. Application of administrative theory to health service organizations.
				Health Care Organization. The basic financial, organization and delivery mechanism for health care.
				Medical/Nursing Practice. Medical concepts, terminology and treatment processes; roles of health personnel.
				Hospital Administration. The role, organization and function of hospitals.
				Public Health Administration. The role, organization and function of public health agencies.
				Health Planning. Processes, techniques and issues in planning community health systems/institutions.
				Financial Management. Planning, implementation and control of accounting, budgeting and investment processes in health care organizations.
				Personnel Administration. Wage and salary administration, performance evaluation, staffing.
				Industrial Relations. Concepts, implications and law pertaining to labor organizations.
				Interpersonal Relations. Human behavior in the organization environment.
				Information Systems/Computer Applications. Design and uses of information systems in health management and planning.
				Quantitative Methods/Applied Statistics. Role and use of statistics in health care settings.
				Economics. Basic theories of micro- or macro-economics including health economics.

HIGH 1	MODERATE 2	LOW 3	NONE 4	
				Research Methodology. Application of research methodology (Problem definition, procedure, data collection and and analysis, etc.) to health service organizations including evaluation research.
				Health Law. Legal concepts and regulation in the health area.
				Medical Sociology. Analysis of the social and cultural factors affecting health, illness and medical practice.
				Epidemiology. Causation, distribution and control of disease populations including environmental health.
				Governmental Relations/Political Science. Federal, state and local governmental roles in health policy, delivery, financing and regulation.
				Practicum/Practical Experience. Exposure to health care organizations and administration practice through field experience.
				General Education/Liberal Arts. College/University requirements other than health administration or General Business.
				Physical Plant, Materials Management, Housekeeping Management. Processes and techniques in managing physical aspects of health facilities.
				General Business. Skills in accounting, marketing, finance, or, production (not health-specific).
				Non-Governmental Regulations. The role and function of non-governmental regulatory units (e.g., accreditation, licensure)
				Applied Organizational Psychology/Sociology. Psychological or sociological factors affecting organizations and employees within the organization.
				Communications. Skills and processes involved in transmitting ideas: oral and written, small group/large group, grantsmanship, and proposal writing.
				Community Relations. Skills, techniques, and process of developing agency-community relations including public relations, and health care marketing and education.
				Administration of Voluntary Organizations. The role, organization, and functions of community voluntary agencies or organizations.

HIGH 1	MODERATE 2	LOW 3	NONE 4	
				Applied Interorganizational Theory. Knowledge and application of interorganizational theory to health service organizations and systems.
				Other (Please specify any area(s) not included in this list you consider important.)________________________________ ____ ____

APPENDIX G

BACCALAUREATE HEALTH ADMINISTRATION PROGRAMS

I. Programs Participating in Baccalaureate Graduate Survey

AUBURN UNIVERSITY
School of Arts and Sciences
Auburn, Alabama

BOWLING GREEN STATE UNIVERSITY
Health Care Administration Program
Bowling Green, Ohio

CALIFORNIA STATE UNIVERSITY-CHICO
Health Care Management/Planning
Chico, California

CANADIAN SCHOOL OF MANAGEMENT*
Health Services Administration Program
Toronto, Ontario, Canada

UNIVERSITY OF CINCINNATI*
Program in Community Health Planning & Administration
Cincinnati, Ohio

FERRIS STATE COLLEGE
Health Services Management
Big Rapids, Michigan

HERBERT H. LEHMAN COLLEGE-
CITY UNIVERSITY OF NEW YORK*
Health Services Administration Program
West Bronx, New York

UNIVERSITY OF HOUSTON-CLEAR LAKE CITY
Program in the Administration of Health Services
Houston, Texas

ITHACA COLLEGE*
Administration of Health Services Program
Ithaca, New York

MADONNA COLLEGE
Allied Health Management
Livonia, Michigan

UNIVERSITY OF MARYLAND-BALTIMORE
Health Science & Policy Program
Catonsville, Maryland

*AUPHA Member Program

UNIVERSITY OF MASSACHUSETTS-BOSTON
College of Management & Professional Studies
Boston, Massachusetts

METROPOLITAN STATE COLLEGE*
Health Care Program
Denver, Colorado

UNIVERSITY OF NEBRASKA MEDICAL CENTER
Division of Health Services Administration
Omaha, Nebraska

UNIVERSITY OF NEW HAMPSHIRE*
Health Administration & Planning Program
Durham, New Hampshire

UNIVERSITY OF NORTH CAROLINA
Health Administration Program
Chapel Hill, North Carolina

NORTHERN ARIZONA UNIVERSITY
Center for Health Science
Flagstaff, Arizona

OREGON STATE UNIVERSITY
Health Care Administration Program
Corvallis, Oregon

PARK COLLEGE*
Management Health Services
Parkville, Missouri

PENNSYLVANIA STATE-CAPITOL CAMPUS
School of Business Administration
Middletown, Pennsylvania

THE PENNSYLVANIA STATE UNIVERSITY*
Health Planning and Administration
University Park, Pennsylvania

PROVIDENCE COLLEGE*
Health Services Administration Program
Providence, Rhode Island

QUINNIPIAC COLLEGE*
Hospital Health Services Administration
Hamden, Connecticut

SANGAMON STATE UNIVERSITY*
Health Services Administration
Springfield, Illinois

*AUPHA Member Program

SOUTHERN ILLINOIS UNIVERSITY-CARBONDALE*
Health Care Services
Carbondale, Illinois

SOUTHWEST TEXAS STATE UNIVERSITY*
Health Care Management Program
San Marcos, Texas

MEDICAL COLLEGE OF VIRGINIA-
VIRGINIA COMMONWEALTH UNIVERSITY*
Health Care Management Program
Richmond, Virginia

WICHITA STATE UNIVERSITY*
College of Health-Related Professions
Wichita, Kansas

UNIVERSITY OF WISCONSIN-EAU CLAIRE
Health Care Administration Program
Eau Claire, Wisconsin

*AUPHA Member Program

II. OTHER PROGRAMS OR CONCENTRATIONS IN HEALTH ADMINISTRATION IDENTIFIED THROUGH HEALTH ADMINISTRATION PROGRAM SURVEY

THE UNIVERSITY OF ALABAMA
Health Care Management Program
University, Alabama

APPALACHIAN STATE UNIVERSITY*
Health Care Management Program
Boone, North Carolina

ARKANSAS COLLEGE
Health Care Administration Program
Batesville, Arkansas

ARKANSAS STATE UNIVERSITY
College of Nursing and Health Prof.
State University, Arkansas

UNIVERSITY OF ARIZONA
Department of Public Administration
Tucson, Arizona

ASHLAND COLLEGE
School of Business Administration
Ashland, Ohio

AUSTIN PEAY STATE UNIVERSITY
Health Care Management Program
Clarksville, Tennessee

BAPTIST MEDICAL CENTER CAMPUS
Health Care Administration Program
Oklahoma City, Oklahoma

CALIFORNIA STATE COLLEGE-SAN BERNARDINO*
Health Administration/Planning Program
San Bernardino, California

CALIFORNIA STATE COLLEGE-FRESNO
Health Care Management Option
Fresno, California

CALIFORNIA STATE UNIVERSITY-NORTHRIDGE*
Health Administration Option
Northridge, California

CALIFORNIA STATE COLLEGE-SAN JOSE
Health Care Management Program
San Jose, California

*AUPHA Member Program

CITY COLLEGE
Health Care Administration Program
Seattle, Washington

COLLEGE OF OLD WESTBURY
Community Health Program
Old Westbury, New York

COLORADO WOMENS' COLLEGE
Health Care Management Program
Denver, Colorado 80220

CONCORDIA COLLEGE*
Program in Hospital Administration
Moorhead, Minnesota

CUMBERLAND COLLEGE
Department of Health
Williamsburg, Kentucky

DAVIS AND ELKINS COLLEGE
Public Health Administration Program
Elkins, West Virginia

EASTERN MICHIGAN UNIVERSITY*
Health Services Administration Program
Ypsilanti, Michigan

EAST TENNESSEE STATE UNIVERSITY
Health Administration Program
Johnson City, Tennessee

ELMHURST COLLEGE
Department of Business Administration
Elmhurst, Illinois

FLORIDA ATLANTIC UNIVERSITY
Health Administration Program
Boca Raton, Florida

FLORIDA INTERNATIONAL UNIVERSITY
Department of Health Services
North Miami, Florida

UNIVERSITY OF FLORIDA
Health Science Program
Gainesville, Florida

FONTBOMME COLLEGE
School of Business Administration
Clayton, Missouri

*AUPHA Member Program

GANNON UNIVERSITY
Health Services Administration Program
Erie, Pennsylvania

GEORGIA STATE UNIVERSITY
Institute of Health Administration
Atlanta, Georgia

GOLDEN GATE UNIVERSITY*
Health Services Management Program
San Francisco, California

GOVERNORS STATE UNIVERSITY*
Health Services Administration
Park Forest South, Illinois

HUNTINGTON COLLEGE
Program in Medical Administration
Montgomery, Alabama

IDAHO STATE UNIVERSITY
Health Care Administration Program
Pocatello, Idaho

JARVIS CHRISTIAN COLLEGE
Division of Science and Math
Hawkins, Texas

KING'S COLLEGE
Health Services Administration Program
Wilkes-Barre, Pennsylvania

LAKE FOREST COLLEGE
Health Services Interdisciplinary Major
Lake Forest, Illinois

LAKEHEAD UNIVERSITY
School of Business Administration
Thunder Bay, Ontario, Canada

UNIVERSITY OF LAVERNE*
Health Care Management and Administration Program
LaVerne, California

LOMA LINDA UNIVERSITY
Department of Public Health Science
Loma Linda, California

UNIVERSITY OF LOWELL*
Health Services Administration Program
Lowell, Massachusetts

*AUPHA Member Program

MARSHALL UNIVERSITY
Huntington, West Virginia

MARYLHURST COLLEGE
School of Management
Marylhurst, Oregon

MEHARRY MEDICAL COLLEGE*
Division of Health Care Administration
Nashville, Tennessee

UNIVERSITY OF MICHIGAN-FLINT
Health Care Program
Flint, Michigan

UNIVERSITY OF MISSOURI-COLUMBIA*
Health Services Management Program
Columbia, Missouri

MORGAN STATE UNIVERSITY
Programs in Health Education
Baltimore, Maryland

UNIVERSITY OF NEW ENGLAND
Division of Management Studies
Biddeford, Maine

NORFOLK STATE UNIVERSITY
Health Services Management Program
Norfolk, Virginia

UNIVERSITY OF NORTH CAROLINA-ASHEVILLE
Department of Management
Asheville, North Carolina

NORTH DAKOTA STATE UNIVERSITY
College of Humanities and Social Sciences
Fargo, North Dakota

NORTHEASTERN OKLAHOMA STATE UNIVERSITY
School of Allied Health Services
Tahlequah, Oklahoma

NORTHEASTERN UNIVERSITY
Health Management Program
Boston, Massachusetts

ST. EDWARDS UNIVERSITY
Health Care Administration Program
Austin, Texas

*AUPHA Member Program

SAINT FRANCIS COLLEGE
Nursing Home Administration Program
Fort Wayne, Indiana

SAINT JOSEPH'S COLLEGE
Department of Health Administration
Brooklyn, New York

SAINT MARY'S COLLEGE OF CALIFORNIA*
Health Services Administration Program
Moraga, California

SAINT PETERS COLLEGE
Health Care Management
Jersey City, New Jersey

SAN DIEGO STATE UNIVERSITY
College of External Studies
San Diego, California

UNIVERSITY OF SASKATCHEWAN
School of Commerce
Saskatoon, Saskatchewan

SOUTHERN MISSIONARY COLLEGE
School of Business Administration
Collegedale, Tennessee

SOUTHERN VERMONT COLLEGE
Health Services Program
Bennington, Vermont

UNIVERSITY OF SOUTH DAKOTA*
Allied Health Sciences
Vermillion, South Dakota

SOUTH DAKOTA STATE UNIVERSITY
School of Nursing
Brookings, South Dakota

SOUTHWESTERN OKLAHOMA STATE UNIVERSITY
Administration of Allied Health Services
Weatherford, Oklahoma

STATE OF NEW YORK COLLEGE OF TECHNOLOGY
Health Services Management Program
Utica, New York

STOCKTON STATE COLLEGE
Public Health School
Pomona, New Jersey

*AUPHA Member Program

STONEHILL COLLEGE
Health Administration Program
North Easton, Massachusetts

STRAYER COLLEGE
Health Facilities Administration Program
Washington, D.C.

UNIVERSITY OF TENNESSEE AT MARTIN
Health Services Management Program
Martin, Tennessee

WALLA WALLA COLLEGE
Department of Business
College Place, Washington

WESTERN KENTUCKY UNIVERSITY
Department of Health and Safety
Bowling Green, Kentucky

WESTERN MICHIGAN UNIVERSITY
College of Health and Human Services
Kalamazoo, Michigan

YORK UNIVERSITY
Health Administration Program
Downsview, Ontario, Canada

III. PROGRAMS OR CONCENTRATION IN HEALTH ADMINISTRATION IDENTIFIED SINCE JUNE 1980

ALFRED UNIVERSITY
School of Business Administration
Alfred, New York

AUGUSTANA COLLEGE
School of Business Administration
Sioux Falls, South Dakota

BRADLEY UNIVERSITY
College of Health Sciences
Peoria, Illinois

CALIFORNIA STATE COLLEGE-BAKERSFIELD
School of Natural Science and Mathematics
Bakersfield, California

CENTRAL STATE UNIVERSITY
College of Business
Wilburforce, Ohio

DILLARD UNIVERSITY
Division of Natural Sciences
New Orleans, Louisiana

EASTERN KENTUCKY UNIVERSITY
College of Business
Richmond, Kentucky

ELIZABETHTOWN COLLEGE
Department of Business
Elizabethtown, Pennsylvania

GARDNER-WEBB COLLEGE
Continuing Education and Summer School
Boiling Springs, North Carolina

GRAND CANYON COLLEGE
Medical Services Supervision Program
Phoenix, Arizona

INDIANA UNIVERSITY
Public Health Academic Program
Indianapolis, Indiana

THE UNIVERSITY OF KANSAS-KANSAS CITY*
Allied Health Education and Administrative Planning Program
Kansas City, Kansas

*AUPHA Member Program

UNIVERSITY OF KENTUCKY*
Health Administration Program
Lexington, Kentucky

LAKELAND COLLEGE
Department of Sociology and Anthropology
Sheboygan, Wisconsin

LAKE SUPERIOR STATE COLLEGE
Sault St. Marie, Michigan

LASALLE COLLEGE*
Health Care Administration Program
Philadelphia, Pennsylvania

MARYCREST COLLEGE
Health Delivery Systems Management
Davenport, Iowa

MARYMOUNT COLLEGE
Health Administration Program
Arlington, Virginia

MERCY COLLEGE OF DETROIT
Center for Allied Health Education
Detroit, Michigan

NATIONAL UNIVERSITY
Program in Health Services Management
San Diego, California

NORTHWESTERN STATE UNIVERSITY
College of Business
Natchitoches, Louisiana

OHIO UNIVERSITY
College of Education
Athens, Ohio

OKLAHOMA BAPTIST UNIVERSITY
Department of Health Care Administration
Shawnee, Oklahoma

RUTGERS UNIVERSITY*
Department of Urban Studies
New Brunswick, New Jersey

SAINT FRANCIS COLLEGE
Division of Business
Brooklyn, New York

*AUPHA Member Program

SAINT JOSEPH'S COLLEGE
Continuing Education
External Degree Program
North Windham, Maine

SAINT MICHAEL'S COLLEGE
Continuing Education
Winooski, Vermont

SALISBURY STATE COLLEGE
Salisbury, Maryland

UNIVERSITY OF SOUTHERN CALIFORNIA
School of Public Administration
Los Angeles, California

SOUTHWEST STATE UNIVERSITY
Department of State University
Marshall, Minnesota

UNIVERSITY OF TEXAS
Gerontological Services Administration Program
Dallas, Texas

UNIVERSITY OF TEXAS AT GALVESTON*
Program in Health Administration
Galveston, Texas

TEXAS SOUTHERN UNIVERSITY
School of Public Affairs
Houston, Texas

UNIVERSITY OF TOLEDO
College of Business Administration
Toledo, Ohio

WEBSTER COLLEGE
Health Services Management
St. Louis, Missouri

WESTERN CAROLINA UNIVERSITY*
Health Services Management and Supervision
Cullowhee, North Carolina

WILEY COLLEGE
Department of Sociology
Marshall, Texas

*AUPHA Member Program

APPENDIX H

FULL UNDERGRADUATE (Type B) MEMBERSHIP CRITERIA*

FULL UNDERGRADUATE (Type B) MEMBERSHIP CRITERIA*

Eligibility

(1) Health Administration Baccalaureate Programs located in the United States shall be eligible for Type B membership if a part of a college or university accredited by a regional agency recognized by the Council on Postsecondary Accreditation or, in Canada, if a part of a college or university which is a member of the Association of Universities and Colleges of Canada.

(2) Programs applying for initial Type B membership must have had graduates within the past academic year.

(3) Programs applying for periodic review must have had graduates within the past three academic years.

(COMMENT: It is recommended that the program graduate ten students or more per year in order to provide the critical mass for a challenging learning environment.)

(4) Programs applying for Type B membership must have been Type C members for at least one acadmeic year prior to applying for advancement.

(COMMENT: The review for Type B membership does not require a site visit to the program; therefore, participation in the AUPHA meetings, institutes and conferences by faculty is encouraged before the program applies for full membership as an avenue of gaining mutual understanding between the applicant and AUPHA.)

*The criteria shall apply to new and current Type B members commencing Jan. 1, 1982. Type C members as of July 1, 1980 must move into Type B membership within two years after the date of acceptance of these criteria by the members.

Criteria*

(1) There must be an adequate number of academically qualified faculty to meet program goals and to serve the students enrolled. These shall be a minimum of two full-time faculty members appointed primarily to teach in the health services administration program and who hold professorial appointments (assistant, associate, or full professor). At least one must possess an earned doctoral degree in an area related to health services administration. Both must have demonstrated knowledge of health services administration. In colleges/universities that have both undergraduate and graduate programs sharing faculty, evidence must be provided of at least two full-time equivalent faculty members (from the full-time faculty) assigned to the undergraduate program.

(2) The program must be formally approved by the governing body and have an institutional statement of support. The academic resources of the college/university shall be sufficiently broad to support the program. Educational policy within the college/university shall enable the program to have access to those resources. The program must also have a formal written statement of objectives which address teaching, research, and service.

(3) There shall be a designated program director whose authority and responsibility shall be clearly defined.

(4) The program must be recognized as an approved major in the college/university catalog or bulletin. The curriculum must consist of content in the following areas:

a. General Education;

(COMMENT: General education as defined by the college/university and/or regional accrediting agency generally meets this requirement. However, deficiencies will be addressed as part of a membership decision.)

b. Foundations of Management Science and Practice;

1) Applied psychology (industrial, organizational, behavioral, social); 2) mathematics/calculus; 3) accounting; 4) computer science; 5)statistics; 6) economics; 7) management information systems; 8) political science; 9) business law.

c. Foundations of Health Administration;

1) Individual, social, and environmental determinants of health and disease; 2) public/community health; 3) health services delivery systems; 4) health planning; 5) financial management of health care institutions; 6) applications of organization and management theory to health services organizations; 7) roles and practices of clinicians; 8) administrative ethics; 9) health law.

d. Faculty-supervised field experience.

Admission to and Maintenance of Type B Membership

(1) An application shall be submitted to the Board of Directors. (four copies)

(2) The Board of Directors shall refer the application for review to the committee it recognizes for that purpose.

(3) The committee recommends appropriate action to the Board which shall recommend appropriate action to the membership.

(4) An affirmative vote of a majority of the membership is required.

(5) Baccalaureate Member Programs shall be formally reviewed for membership every three years.

Termination of Type B Membership

Type B Membership in the Association may be terminated under the following conditions upon recommendation of the Board of Directors and a majority vote of the membership.

(1) If the program ceases to meet the established criteria for membership.

(2) If a program is delinquent in the payment of dues and fees due to the Association for a period of twelve months; or

(3) If the program requests that its membership be terminated.

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